

DRAFT

SMITHSONIAN INSTITUTION

FIVE-YEAR PROSPECTUS
FY 1987 - FY 1991



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SMITHSONIAN INSTITUTION
FIVE-YEAR PROSPECTUS
FY 1987 - 1991
INTRODUCTION

James Smithson bequeathed the whole of his property "to the United States of America, to found at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men." In doing so, he created a charitable trust, through the terms of which the United States would serve as trustees for purposes directed toward the benefit of all mankind. By the Act of July 1, 1836, Congress accepted Smithson's bequest, and pledged the "faith of the United States" to carry out its purposes. In the Act of August 10, 1846, Congress established the Institution in its present form and placed responsibilities for management with a Board of Regents.

The Smithsonian is a unique establishment which is both privately endowed and publicly supported, and whose management is vested in an independent board composed of ex officio federal officials as well as private citizens. This arrangement has made possible the remarkable growth and achievements of the Institution during the one-hundred thirty-nine years of its existence. Donations from both the public and private sector have increased its collections and continuing additions to its trust funds have expanded and nourished the Institution's usefulness. Appropriations recommended by successive Administrations and approved by successive Congresses have provided steadily increasing federal support for many of the Smithsonian's far-reaching services to the public. Through the development of the Smithsonian Associates programs, the Institution now has a nationwide group of interested supporters who sponsor many of its educational activities across the country, and annually thousands of service hours are provided to the Institution by dedicated volunteers.

The Smithsonian Institution's programs are devoted to public education, research, and service in the arts, sciences, and history. Centered on the Mall in Washington, D.C., the Institution also operates major facilities and activities elsewhere in Washington, across the country, and overseas. It is one of the world's leading research centers and encompasses the world's largest museum complex. Smithsonian collections contain more than 100,000,000 art objects, natural history specimens, and artifacts, a figure based on a recent inventory. The collections are displayed for the enjoyment and education of visitors and are utilized for research by staff of the Institution and by hundreds of visiting students, scientists, and historians each year. The management, care, and security of its collections and a program of selective acquisition for the collections are basic institutional commitments.

In addition to museum curation and exhibition, the Smithsonian conducts a wide range of other programs in order to carry out its broad goal of increasing and diffusing knowledge about Man, his culture, and his environment. Some of these are joint ventures in cooperation with other institutions, universities, and government agencies in the United States and on every continent. As an outgrowth of basic scientific research, fundamental

data are assembled for use by planners and research workers in other organizations, both government and private, and national and international in scope. Much of this activity fosters conservation, and can be expected to lead to results that are directly applicable to national needs and goals. Historical research, which enhances knowledge of this nation's growth through studies of technological development, art, and folklife and folklore traditions, also is a major endeavor.

The results of the Institution's research are disseminated to a wide audience through books, monographs, exhibit catalogues, and education pamphlets. Public-oriented programs include exhibits, performances, radio, television, and Smithsonian magazine. In addition to the approximately 26,000,000 visitors annually who visit the Institution's museums, galleries and zoological park, many millions more view Smithsonian traveling exhibitions, which appear throughout the United States and abroad, and the Institution's annual folklife festival.

In the fall of 1977, the Regents and the Secretary established a five-year forward planning process covering all activities of the Institution. This process has proven to be a useful mechanism for management to examine development alternatives and to communicate important results and information to the Office of Management and Budget, Congressional authorizing and appropriations committees, and to other interested constituents. The Five-Year Prospectus, FY 1987-FY 1991 is the eighth in a series of documents resulting from that action.

The process is an annual one and involves the preparation of plans and resource projections by each of the Smithsonian's organizations. The review of these materials occurs throughout the spring and summer months simultaneously with the assembly of the federal and trust budgets for the forthcoming fiscal year. A draft Prospectus is prepared and submitted to the Regents for initial consideration in September of each year. Following the Regent's approval of the forthcoming budgets in September, and the review in November or December by the Office of Management and Budget of the Institution's federal budget request, the Prospectus is adjusted and prepared for approval by the Regents at their January meeting. If approved, it is distributed to the Institution's various Congressional committees at about the same time as the request for Congressional appropriations.

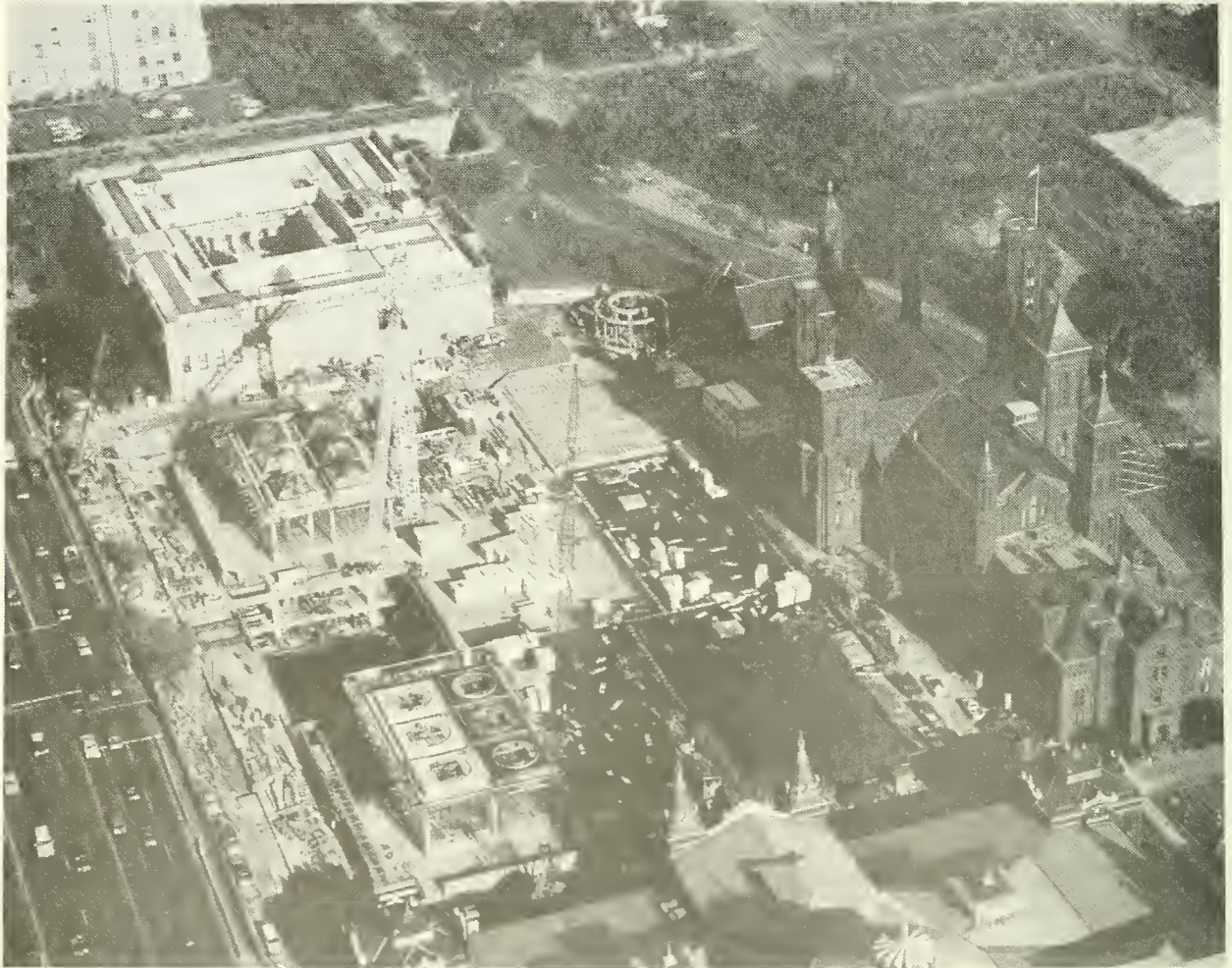
The Prospectus represents a summary of the areas that will be given priority and emphasis over the next few years and contains a chapter which describes some of the Institution's longer-range facility and operating objectives, projecting various activities ahead to about FY 2000. The Prospectus should be read in conjunction with another publication, the Smithsonian Institution's Programs and Activities (January 1984), which provides background information on the programs of each of the Institution's operating activities. The content presented here is arranged by the current major organization grouping of the Institution and corresponds to the assembly of the FY 1987 budget being presented to the Office of Management and Budget; i.e., Science, History and Art, Public Service, Museum Programs, International Activities, with separate sections treating Special Programs, Associate Programs, Business Management Activities, and Administrative and Facilities development plans. The Prospectus will incorporate the results of reorganizations in future years as they occur; for example future

editions will describe the activities and plans of the Assistant Secretary for Museums, a position which may be filled in the near future. Detailed projections and brief descriptions for the bureaus and offices appear in Appendix I. Several items discussed in the text, along with the financial figures for FY 1987, complement the Institution's budget submission to the Office of Management and Budget, and also appear in that document.

The Prospectus reflects needs and opportunities that the Smithsonian has described before. It emphasizes selected aspects of the Institution's work while assuring that others will continue at approximately the present level of activity. Areas of emphasis include research and replacement of research equipment, security of collections and other property, automation of records and systems, and the maintenance of current facilities. Also, activities in celebration of the Bicentennial of the Constitution and planning for activities related to the Columbian Quincentennial are incorporated for future years. The Museum Support Center at Suitland continues to need appropriate operating and equipment purchase resources for the activities to be housed there. As a new effort, the Institution is hopeful of being able to partially support with federal appropriations a project directed at improving the quality of science education in the nations elementary and secondary schools through development of concepts and materials for better teaching. This is planned as a joint project involving the Smithsonian and the National Academy of Sciences. Facilities development plans include the completion of most work for the Zoological Park at Rock Creek and continued development of conservation and research center at Front Royal, the successful establishment of Quadrangle and selected science facilities, some new and expanded facilities for the Cooper-Hewitt Museum, the restoration and preservation of the General Post Office Building and storage and exhibit facilities for the Air and Space Museum.

Through its trust operations, the Institution will continue to concentrate on ways to develop quality educational products for the visiting public and Associate programs, sustain growth in endowment reserves, supplement important programs such as collections acquisitions, special exhibitions, fellowships, tours, selected research investigations, conferences, and symposia of timely importance. Unrestricted trust funds and private donations are being used to cover one-half the construction costs of the Quadrangle. Trust funds, gifts, fund raising programs, and other arrangements are used to help defray planned costs associated with selected plant or facility projects such as public restaurants and museum shops, the Tropical Research Institute's laboratory and conference center, and expansion of Cooper-Hewitt's facilities.

In a significant way, through the budget process, the Institution has redirected current federal resources to meet high priority needs and has applied unrestricted trust fund income as self-help contributions to maintain the administrative support balance and to strengthen programs of research acquisition, exhibition, and education. Such efforts will continue to the best of the Institution's ability given the pressures at work on the federal budget to reduce spending while public use of our services remains strong, and given the uncertainty surrounding the continued availability of unrestricted trust income from auxiliary and other activities. Although the present revenues are encouraging, the Institution's management feels only



This aerial view of the Quadrangle construction project shows the progress being made toward a spring, 1986 completion. Photo by Richard Hofmeister.

guardedly optimistic about any five-year projection of such income. The public acceptance of the Institution's products or services, such as those performed by the National Associates, is speculative. As with any such projections, therefore, it seems imperative that appropriate safeguards should be taken against the assumption that the expansion of these activities will continue.

The Institution will continue to pursue the following principal objectives over the next five years.

<u>Objectives</u>	<u>Principal Funding Source(s)</u>
<u>Operations</u>	
1. To open, and operate the Quadrangle including establishment of the major international exhibit, research, collections, and education programs.	Federal Appropriations Nonappropriated Unrestricted Trust Funds and private donations
2. To fully equip the Museum Support Center, and establish as an integral part of operations a collections conservation and conservation training program.	Federal Appropriations and Nonappropriated Unrestricted Trust Funds
3. To enhance the Institution's activities in national and international cultural and environmental research, conservation, and education with emphasis on temperate and tropical biology, and on the conservation and study of endangered species.	Federal Appropriations
4. To improve the level of technical assistance, equipment, and program funds which support collections related and other original research by the Institution's professional staff. Priority is placed on stimulating innovative approaches for collaborative research with other countries and organizations, improving research through competition and outside peer evaluation, and through expansion of fellowship programs for senior and aspiring junior scholars, especially women and minorities.	Federal Appropriations and Nonappropriated Unrestricted Trust Funds
5. To strengthen museum operations in the documentation and care of the collections, development of new analytical programs, automated	Federal Appropriations

security and information retrieval systems, and conservation programs.

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|----|--|--|
| 6. | To develop contemporary exhibitions and exhibition techniques to communicate to the Institution's audiences information about recent discoveries, new technologies important ideas, and new results of scholarship in science, history and art. | Federal Appropriations
and Nonappropriated
Unrestricted Trust Funds |
| 7. | To continue to offer the nation an outstanding magazine and other quality publications on subjects within the Institution's responsibilities; to utilize the latest technologies and methods to provide radio programs, recordings, and television presentations. | Nonappropriated
Unrestricted Trust Funds |
| 8. | To strengthen the National Collections for research and exhibitions through the acquisition of important objects and specimens. | Federal Appropriations,
Nonappropriated Unrestricted
Trust Funds, and private
donations |
| 9. | To augment administrative, financial and other support services to meet current and anticipated program needs. Areas of special emphasis include personnel, facilities management, audit, and library services to meet the total requirements of the Institution, and computer and automation services in connection with improved documentation and control of the collections. Strengthening of equal employment opportunities and activities will continue to receive attention over the planning period. | Federal Appropriations
and Nonappropriated
Unrestricted Trust Funds |

Facilities

- | | | |
|----|---|---|
| 1. | To develop and equip the Quadrangle to accommodate the activities of the Arthur M. Sackler Gallery, the National Museum of African Art, and the International Center. | Federal Appropriations,
Nonappropriated Unrestricted
Funds, and private donations |
| 2. | To provide new and renovated facilities at the Smithsonian's Washington, D.C. and field locations for purposes of facilitating research and educational programs. Special facilities projects | Federal Appropriations,
private, donations, and other
fundraising efforts |

include those planned for the Tropical Research Institute in Panama, the Fred L. Whipple Observatory in Arizona, the Cooper-Hewitt Museum in New York and the Air and Space Museum at Dulles International Airport.

3. To restore the General Post Office Building for public use and enjoyment as a center for the exhibit and study of American art and culture. Federal Appropriations
4. To pursue the development of animal and public facilities at the Zoological Park in Rock Creek Valley, and to improve the research, conservation, and visitor education facilities at the Zoo's Research and Conservation Center at Front Royal, Virginia. Federal Appropriations
5. To repair, upgrade, and restore Smithsonian buildings to keep them in safe and functional condition with special emphasis on the provision of fire detection, containment, and suppression systems, access by handicapped persons, building exteriors, and energy conservation. Federal Appropriations

For the most part, the effects of inflation cannot be incorporated realistically into the Institution's resource forecasts for bureau and program operations. Summary Table 1, however, attempts to show the general levels of resources that would materialize assuming legislated pay changes are forthcoming in the range of four percent per year and assuming federal nonpersonnel purchases occur based on price changes for future years as derived from indices supplied by the Office of Management and Budget. Similar patterns are incorporated for trust projections. By FY 1991, resources from all sources required for various operations would increase from FY 1985 levels of approximately \$333,000,000 to about \$510,000,000 and it is expected that about one-half of this increase will be due to changes in legislated and other pay scales, and increases in utilities, rent, postage, communications and other inflationary causes.

Exclusive of legislated pay increases, federal operating costs are projected to increase approximately \$90,000,000. Significant additions are forecast for such items as equipping and operating the Quadrangle, basic and interpretive research utilizing the collections and scientific and cultural

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Appendix II presents a summary of areas of operations incorporating inflationary effects into the projections, and converting institutional resource growth into constant FY 1985 dollars.



Exterior view of the General Post Office Building from 7th and G Streets, N.W. Photo by Jeff Ploskonka.



Interior view of the General Post Office Building. Photo by Jeff Ploskonka.

information, improvements to technical and program support, physical plant operations, maintenance and repair, security, and equipment replacement.

Operations supported with nonappropriated trust funds and federal grants and contracts are expected to increase by approximately \$69,000,000. These increases involve primarily the revenue producing activities, including the Magazine and the Smithsonian Press, where production expenses are predicted to increase considerably. Detailed forecasting of federal grant and contract activities is difficult to achieve, but the Institution expects some increasing support for various operations in future years. Finally, operations funded by restricted trust fund resources are expected to remain approximately stable, largely reflecting a conservative outlook for gift and grant support in future years. This forecast may change over the fiscal year.

The trust fund forecasts assume the Institution will make measured progress in increasing its capital reserves (endowments), thus approximately \$3,000,000 to \$5,000,000 a year is incorporated into the projections for this purpose. In addition, trust support for fellowships, special exhibitions, collection acquisitions, research, and other educational activities is projected to be slightly higher in future years if economic conditions permit, and if the Institution's auxiliary and revenue-producing activities continue to perform in a satisfactory fashion.

Major additions to physical facilities are expected over the next five years or so other than the Quadrangle. The Institution is working toward renovating the General Post Office Building, now occupied by the International Trade Commission, with expectations of restoring the facility for public and museum uses. In addition, major projects are currently envisioned for the Rock Creek facilities of the Zoological Park, the Cooper-Hewitt Museum, the Tropical Research Institute, and Astrophysical Observatory, and the Arts and Industries Building. Plans continue to evolve with regards to additional storage and exhibit space for the Air and Space Museum at Dulles International Airport, and modifications to the Mall building for establishing larger and more effective facilities for trust funded food services to serve the public. Improvements and contemplated changes to other facilities include the installation of fire detection and suppression systems, the correction of other hazardous conditions, attention to disabled persons access, and the provision of renovations, repairs and maintenance to all Smithsonian buildings.

Notes on Financial Projections

The tables are designed to show trends in the Institution's future year resource patterns, and to reflect the changes and growth contained in the narrative portions of this report. The FY 1985 figures are end-of-year estimates for expenditures and income. FY 1986 figures are those pending approval by Congress, Board of Regents' authorization to expend the FY 1986 appropriation, and Board of Regents' approval of the nonappropriated trust fund portion of the FY 1986 budget.

The FY 1987 figures reflect the consolidated budget assembled for approval by the Board of Regents at its September 16, 1985 meeting. The estimates have been submitted to the Office of Management and Budget. The

FY 1987 figures resulted from the Institution's planning and budget reviews that place during the spring and summer months of 1985, and which included the directors of bureaus and offices. Projections for years FY 1988-1991 were derived from basic materials prepared by the organizations and bureaus of the Institution and then reviewed by the appropriate members of the Secretary's Management Committee. The trends represent management's best estimate of federal and trust resources that will be needed to meet program and operating aspirations of the Institution.

Trust fund projections, as mentioned earlier, are particularly vulnerable to fluctuations in the nation's economic climate. They are presented to help explain the expected use of these funds. Trust funds are composed of restricted and unrestricted funds. Unrestricted trust funds (general and special purpose) originate from a variety of sources including income from endowments and current fund investments, parking and food service concessions, sales of Smithsonian products based on designs and objects in the collections, the Resident and National Associate Programs (including Smithsonian magazine), a publication program, and the museum shops. In addition, certain bureaus have their own income-producing activities, such as the Theater and Spacearium operations of the Air and Space Museum. Restricted trust funds include gifts, grants, endowment, and other income designated for specific projects and purposes by the donor. The Freer fund is the largest example in this category, being strictly controlled under the terms of the original bequest for the sole use of the Gallery.

There are three major purposes to which the unrestricted trust funds are applied. First, the expenses of the Associate Programs and revenue-producing activities, such as the Smithsonian magazine and the museum shops, are funded from the earned income of these activities. Second, central management and administrative service units of the Institution, such as legal counsel, accounting, personnel, supply and others, receive trust fund allotments funded almost entirely from the overhead recovery on grants and contracts administered by the Smithsonian and from administrative fees charged to trust-funded activities. General operating funds are also provided to various units for research and other specific purposes. Third, a variety of allocations for important institutional and bureau needs are made with the approval of the Board of Regents, such as the Collections Acquisitions, Scholarly Studies, and Education Programs, and the Institution's Fellowship programs.

After the three major categories of operating expense financed with unrestricted trust funds are met, the remaining unrestricted income is designated for three purposes. Funds are transferred to the museums and galleries in recognition of their assistance in the planning and conduct of museum shop, product development, and concession programs. These funds are used for the general operations of the recipient bureaus. A second designation is for improvements to the physical plant or land acquisitions. Finally, funds permitting, the Institution makes an annual transfer to its endowment for the purpose of providing income for rising costs in future years.

The other source of nonappropriated funding, federal grants and contracts, is made available to the Smithsonian by governmental agencies and departments to support specific types of research, educational or other

projects which the Smithsonian can undertake as a result of its expertise or its ability to respond quickly to certain kinds of needs.

Tables 1 and 2. Table 1 contains general levels of dollar resources (or revenues) from various sources which the Institution projects will be necessary for the conduct of its operations. In a summary fashion, it incorporates estimates for inflation and pay increases associated with federal and trust operations of the Institution. Table 2 projects expenses by functional area of operation (Science, History and Art, etc.) along with the application of trust funds to such items as plant improvements; endowments; and special activities such as the Collection Acquisition, Scholarly Studies, and Education Programs.

Tables 3, 3A and 4. All major construction projects are included that are underway or being planned. For some future projects, detailed planning and estimating remain to be done and the amounts as well as the possible sources of funding have not been fully determined.

Table 5. Projections associated with programs and operating activities of units to be located in the Quadrangle, along with some expected maintenance and support costs, are consolidated in Table 5 to provide an overview of the organizational resources involved in that new facility.

Appendix I, Tables 6 through 14. These contain detailed expense projections for the Institution's museums, galleries, and laboratories. For ease of presentation, expenses associated with the various administrative, financial, and support organizations of the Institution are grouped into three categories in Table 13: (1) Central Management Offices, (2) Specialized Administrative and Technical Offices, and (3) Facilities Offices.

Appendix II, Table 15. Presents operating funds for the period FY 1975-FY 1991 in actual and constant 1985 dollars.

Table 1

SOURCE OF OPERATING FUNDS	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
<u>Federal Salaries and Expenses</u>	164,321	185,590	202,219	226,063	231,226	250,769	254,787
Plus cumulative effect of legislated pay changes	--	--	3,700	8,000	12,300	17,100	21,800
Subtotal	164,321	185,590	205,919	234,063	243,526	267,869	276,587
<u>Nonappropriated Trust Funds</u>							
<u>Unrestricted General</u>							
Investments	4,075	4,500	4,370	4,450	4,500	4,550	4,600
Gifts	50	50	50	50	50	50	50
Auxiliary Activities	133,845	142,905	154,080	161,365	172,660	184,190	196,210
Miscellaneous	260	80	50	50	50	50	50
Subtotal	138,230	147,535	158,550	165,915	177,260	188,840	200,910
<u>Unrestricted Special Purpose</u>							
Investments	587	619	584	590	590	590	590
Gifts	116	128	136	135	135	135	135
Bureau Activities	3,565	3,756	3,675	3,900	4,000	4,100	4,200
Miscellaneous	1,444	1,274	1,417	1,430	1,430	1,430	1,430
Subtotal	5,712	5,777	5,812	6,055	6,155	6,255	6,355
<u>Restricted</u>							
Investments	3,530	3,902	3,801	3,950	4,100	4,250	4,400
Gifts, Grants and Contracts	5,080	6,680	12,431	5,700	6,850	6,150	6,100
Miscellaneous	764	887	919	950	950	950	950
Subtotal	9,374	11,469	17,151	10,600	11,900	11,350	11,450
<u>Federal Grants and Contracts</u>	15,741	15,815	16,381	21,855	22,482	19,869	14,576
Gross Income	333,378	366,186	403,813	438,488	461,323	494,183	509,878
Less Expenses of Auxiliary and Bureau Activities	(116,478)	(127,974)	(136,036)	(142,233)	(151,238)	(160,822)	(170,773)
Net Funds Provided	216,900	238,212	267,777	296,255	310,085	333,361	339,105

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 PROJECTED THROUGH FY 1991

(\$000)

Table 2 (1)

APPLICATION OF OPERATING FUNDS	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
<u>Science</u>							
.Federal Salaries and Expenses	55,589	59,696	62,681	69,057	72,238	77,367	78,685
.Unrestricted General							
-Program and Administrative*	833	466	486	494	502	509	518
-Auxiliary Activities	--	--	--	--	--	--	--
.Unrestricted Special Purpose							
-Bureau Activities	2,268	2,248	2,011	2,048	2,205	2,226	2,274
-All Other	2,348	2,062	2,053	2,088	3,371	3,893	2,572
.Restricted	3,389	2,738	4,952	3,222	4,284	3,260	2,663
.Federal Grants and Contracts	15,484	15,163	15,479	20,955	21,582	18,969	13,676
Subtotal	79,911	82,373	87,662	97,864	104,182	106,224	100,388
<u>History and Art</u>							
.Federal Salaries and Expenses	27,806	33,492	36,043	39,774	39,920	40,613	42,111
.Unrestricted General							
-Program and Administrative	1,958	1,183	1,211	1,185	1,207	1,233	1,255
-Auxiliary Activities	--	--	--	--	--	--	--
.Unrestricted Special Purpose							
-Bureau Activities	689	708	723	728	749	771	793
-All Other	1,373	1,143	1,007	1,097	1,121	1,146	1,172
.Restricted	4,508	6,271	5,924	4,988	4,864	5,009	5,158
.Federal Grants and Contracts	196	59	50	50	50	50	50
Subtotal	36,530	42,856	44,958	47,822	47,911	48,822	50,539
<u>Public Service</u>							
.Federal Salaries and Expenses	2,256	2,400	2,483	2,483	2,483	2,483	2,483
.Unrestricted General							
-Program and Administrative	1,654	1,772	1,887	1,962	2,083	2,166	2,236
-Auxiliary Activities	12,915	11,975	13,100	14,230	15,340	16,480	17,235
.Unrestricted Special Purpose							
-Bureau Activities	42	57	58	60	74	83	95
-All Other	445	102	59	1	1	1	1
.Restricted	131	11	--	--	--	--	--
.Federal Grants and Contracts	--	--	--	--	--	--	--
Subtotal	17,443	16,317	17,587	18,736	19,981	21,213	22,050

* Net of SAO Overhead Recovery

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 PROJECTED THROUGH FY 1991

(\$000)

Table 2 (2)

APPLICATION OF OPERATING FUNDS	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
<u>Museum Programs</u>							
.Federal Salaries and Expenses	9,920	11,404	12,292	14,821	14,998	15,406	15,937
.Unrestricted General							
-Program and Administrative	474	542	598	616	634	518	533
-Auxiliary Activities	1,485	1,840	2,005	2,100	2,190	2,275	2,365
.Unrestricted Special Purpose							
-Bureau Activities	60	48	47	70	75	80	85
-All Other	470	149	11	52	53	52	53
.Restricted	1,533	1,793	1,007	1,005	1,000	1,000	1,000
.Federal Grants and Contracts	14	1	--	--	--	--	--
Subtotal	13,956	15,777	15,960	18,664	18,950	19,331	19,973
<u>Directorate, International Activities</u>							
.Federal Salaries and Expenses	319	605	961	1,156	1,746	2,796	2,796
.Unrestricted General							
-Program and Administrative	435	618	829	752	772	793	815
-Auxiliary Activities	--	--	--	--	--	--	--
.Unrestricted Special Purpose							
-Bureau Activities	--	--	--	--	--	--	--
-All Other	--	100	150	150	200	200	250
.Restricted		210	327	300	300	300	300
.Federal Grants and Contracts	--	--	--	--	--	--	--
Subtotal	754	1,533	2,267	2,358	3,018	4,089	4,161
<u>Special Programs</u>							
.Federal Salaries and Expenses	8,399	10,478	12,300	14,709	10,209	15,714	8,445
.Unrestricted General							
-Program and Administrative	947	1,085	1,194	1,165	1,204	1,239	1,276
-Auxiliary Activities	--	--	--	--	--	--	--
.Unrestricted Special Purpose							
-Bureau Activities	9	9	6	6	6	6	6
-All Other	8,636	8,358	8,881	10,309	11,349	12,699	13,109
.Restricted	485	633	410	365	425	480	490
.Federal Grants and Contracts	43	592	852	850	850	850	850
Subtotal	18,519	21,155	23,643	27,404	24,043	30,988	24,176

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 PROJECTED THROUGH FY 1991

Table 2 (3)

(\$000)

APPLICATION OF OPERATING FUNDS	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
<u>Associates Programs</u>							
.Federal Salaries and Expenses	--	--	--	--	--	--	--
.Unrestricted General							
-Program and Administrative	900	1,004	1,000	948	976	1,006	1,036
-Auxiliary Activities	68,740	78,850	82,635	84,255	88,845	93,730	99,200
.Unrestricted Special Purpose							
-Bureau Activities	10	10	12	13	14	14	15
-All Other	63	40	43	--	--	--	--
.Restricted	23	32	2	--	--	--	--
.Federal Grants and Contracts	4	--	--	--	--	--	--
Subtotal	69,740	79,936	83,692	85,216	89,835	94,750	100,251
<u>Business Management</u>							
.Federal Salaries and Expenses	--	--	--	--	--	--	--
.Unrestricted General							
-Program and Administrative	--	--	--	--	--	--	--
-Auxiliary Activities	30,180	32,145	35,350	38,635	41,650	45,065	48,610
.Unrestricted Special Purpose							
-Bureau Activities	--	--	--	--	--	--	--
-All Other	--	--	--	--	--	--	--
.Restricted	--	--	--	--	--	--	--
.Federal Grants and Contracts	--	--	--	--	--	--	--
Subtotal	30,180	32,145	35,350	38,635	41,650	45,065	48,610
<u>Administrative, Financial and Technical Services</u>							
.Federal Salaries and Expenses	11,267	12,791	13,569	14,385	14,588	14,788	14,898
.Unrestricted General							
-Program and Administrative*	418	488	2,046	2,091	2,116	2,121	2,106
-Auxiliary Activities	80	--	--	--	--	--	--
.Unrestricted Special Purpose							
-Bureau Activities	--	84	89	88	90	92	95
-All Other	1,165	886	339	329	29	30	30
.Restricted	112	111	106	95	95	95	95
.Federal Grants and Contracts	--	--	--	--	--	--	--
Subtotal	13,042	14,360	16,149	16,988	16,918	17,126	17,224

* Net of SI Overhead Recovery

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 PROJECTED THROUGH FY 1991

(\$000)

Table 2 (4)

APPLICATION OF OPERATING FUNDS	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
<u>Facilities Services</u>							
.Federal Salaries and Expenses	48,765	55,097	58,908	61,697	63,449	65,007	66,237
.Unrestricted General							
-Program and Administrative	1,673	1,606	1,733	1,785	1,837	1,892	1,947
-Auxiliary Activities	--	--	--	--	--	--	--
.Unrestricted Special Purpose							
-Bureau Activities	--	--	--	--	--	--	--
-All Other	215	239	273	263	272	272	273
.Restricted	--	1	1	1	1	1	1
.Federal Grants and Contracts	--	--	--	--	--	--	--
Subtotal	50,653	56,943	60,915	63,746	65,559	67,172	68,458
<u>Adjustments for Inflation, Pay Requirements and Grade Reductions</u>							
.Federal Salaries and Expenses							
-Necessary Pay	--	--	1,958	4,300	5,900	8,400	11,300
-Grade Reductions	--	(373)	(746)	(1,119)	(1,305)	(1,305)	(1,305)
-Inflation	--	--	1,770	4,800	7,000	9,500	13,200
-Supplemental	--	--	3,700	8,000	12,300	17,100	21,800
Subtotal	0	(373)	6,682	15,981	23,895	33,695	44,995
<u>Institutional Total</u>							
.Federal Salaries and Expenses	164,321	185,590	205,919	234,063	243,526	267,869	276,587
.Unrestricted General							
-Program and Administrative	9,292	8,764	10,984	10,998	11,331	11,477	11,722
-Auxiliary Activities	113,400	124,810	133,090	139,220	148,025	157,550	167,410
.Unrestricted Special Purpose							
-Bureau Activities	3,078	3,164	2,946	3,013	3,213	3,272	3,363
-All Other	14,715	13,079	12,816	14,289	16,396	18,293	17,460
.Restricted	10,181	11,800	12,729	9,976	10,969	10,145	9,707
.Federal Grants and Contracts	15,741	15,815	16,381	21,855	22,482	19,869	14,576
Gross Funds Applied	330,728	363,022	394,865	433,414	455,942	488,475	500,825
Less Expenses of Auxiliary and Bureau Activities	(116,478)	(127,974)	(136,036)	(142,233)	(151,238)	(160,822)	(170,773)

(\$000)

APPLICATION OF OPERATING FUNDS	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
<u>Net Funds Applied Before Transfers</u>							
.Federal Salaries and Expenses	164,321	185,590	205,919	234,063	243,526	267,869	276,587
.Unrestricted General	9,292	8,764	10,984	10,998	11,331	11,477	11,722
.Unrestricted Special Purpose	14,715	13,079	12,816	14,289	16,396	18,293	17,460
.Restricted	10,181	11,800	12,729	9,976	10,969	10,145	9,707
.Federal Grants and Contracts	15,741	15,815	16,381	21,855	22,482	19,869	14,576
Net Before Transfer	214,250	235,048	258,829	291,181	304,704	327,653	330,052
<u>Transfers: Out/(In)</u>							
.Federal Salaries and Expenses	--	--	--	--	--	--	--
.Current Funds Transfers (Internal)							
-Unrestricted General	9,313	10,439	10,357	11,882	12,805	14,263	14,852
-Unrestricted Special Purpose	(9,313)	(10,439)	(10,357)	(11,882)	(12,805)	(14,263)	(14,852)
.Current Funds to Plant Improvement							
-Unrestricted General	322	22	--	--	--	--	--
-Unrestricted Special Purpose	--	--	--	--	--	--	--
.Current Funds to Endowment							
-Unrestricted General	3,000	3,000	3,500	3,500	4,500	5,000	5,500
-Unrestricted Special Purpose	--	--	--	--	--	--	--
-Restricted	107	126	107	110	113	116	119
Total Transfers	3,429	3,148	3,607	3,610	4,613	5,116	5,619
<u>Net Changes In Fund Balance:</u>							
Increase/(Decrease)							
.Unrestricted General	2,903	500	619	315	599	550	1,426
.Unrestricted Special Purpose	(2,768)	(27)	407	635	(649)	(1,047)	384
.Restricted	(914)	(457)	4,315	514	818	1,089	1,624
.Federal Grants and Contracts	0	0	0	0	0	0	0
Subtotal	(779)	16	5,341	1,464	768	592	3,434
<u>Net Funds Applied</u>							
.Federal Salaries and Expenses	164,321	185,590	205,919	234,063	243,526	267,869	276,587
.Unrestricted General	24,830	22,725	25,460	26,695	29,235	31,290	33,500
.Unrestricted Special Purpose	2,634	2,613	2,866	3,042	2,942	2,983	2,992
.Restricted	9,374	11,469	17,151	10,600	11,900	11,350	11,450
.Federal Grants and Contracts	15,741	15,815	16,381	21,855	22,482	19,869	14,576
Net Funds Applied	216,900	238,212	267,777	296,255	310,085	333,361	339,105

SCIENCE

The science programs of the Institution consist of the Museum of Natural History/Museum of Man, Astrophysical Observatory, Air and Space Museum, Tropical Research Institute, Environmental Research Center, and the Zoological Park. In addition, supporting units that report to the Assistant Secretary for Science include the National Science Resources Center, the International Environmental Science Program, and the Office of Fellowships and Grants. The latter two offices are contained within the Special Programs chapter to provide consistency with the FY 1987 budget submission.

The Smithsonian, by virtue of its staff, collections, data bases, and research facilities, is a unique international resource in the basic sciences. Complementing industrial, federal, and university research, the Smithsonian's long-term scientific efforts provides critical continuity to the nation's research enterprise in a number of fields. The Institution's systematists, for example, provide the fundamental building blocks by which more advanced research in ecological/evolutionary sciences may occur. In addition to serving the broad research community, Smithsonian research is the foundation for the Institution's public activities. The accuracy and currency of its exhibitions and the quality of its public education program depend directly on the research of the staff. Continued support for the Institution's scientific research is required if other elements of the Smithsonian's overall program are to succeed.

Current and Projected Resources

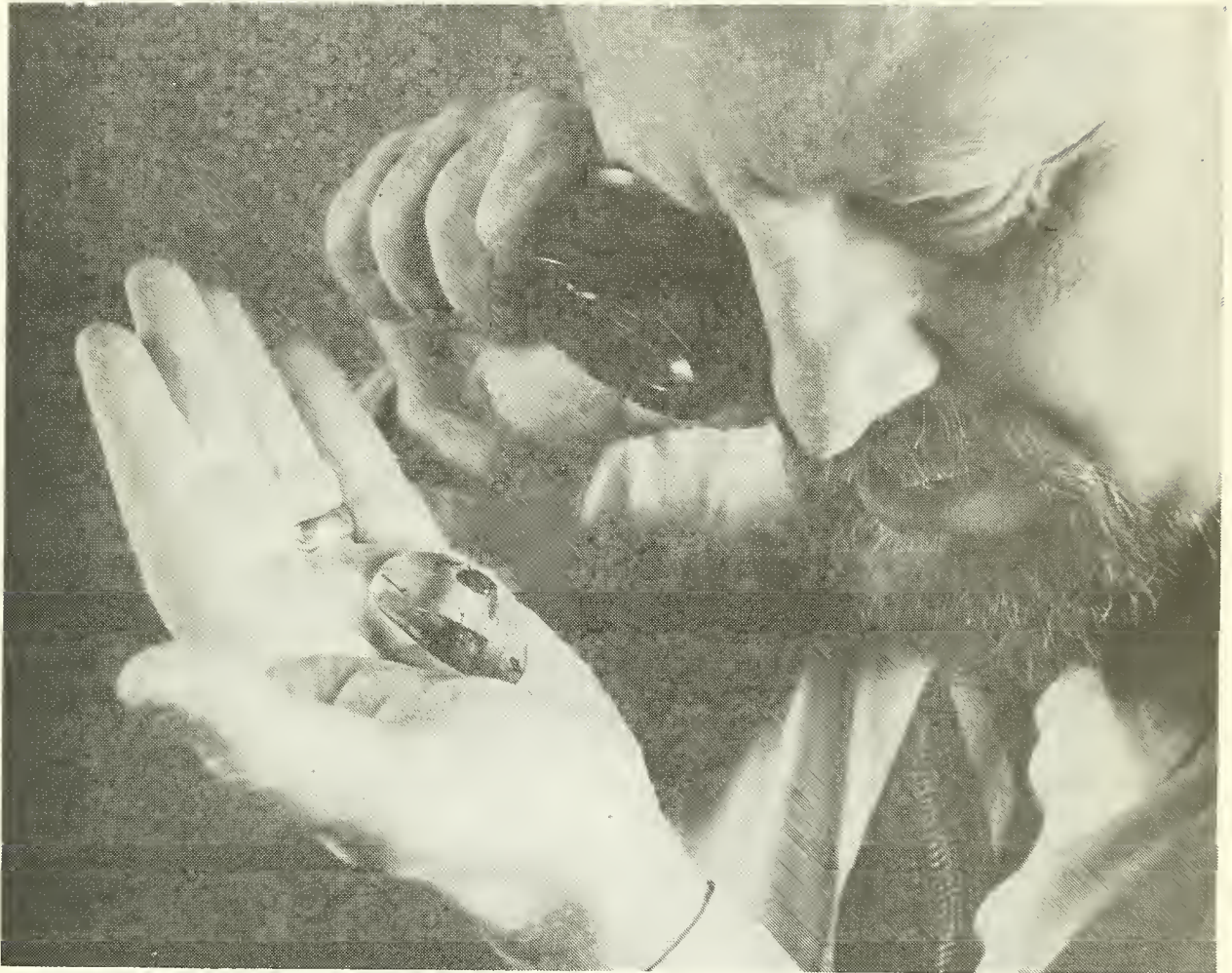
Sources of science support vary markedly from organization to organization. For example, the Marine Station at Link Port, Fort Pierce, Florida, which is administered by the Museum of Natural History, operates solely with restricted trust funds, while the Astrophysical Observatory, because of its unique national and international position as a research leader, has about two-thirds of its dollar and personnel resources associated with federal grants and contracts. The Tropical Research Institute and the Zoological Park, on the other hand, rely extensively on federal appropriations for maintaining programs.

As is the case with other museums and galleries of the Institution, the Museum of Natural History and the Air and Space Museum conduct their basic exhibit, research, collections, and building services activities primarily with federal appropriations, but at the same time enjoy measured support from restricted or unrestricted trust sources, and from federal grant and contract work based upon their ability to obtain these funds.

A breakdown of estimated FY 1985 and projected FY 1991 resources available for science operations (before application of overhead recovery) follows:



Dr. Robert J. Emry, paleobiology curator, installing fossil "Dawn Horse" in "Mammals in the Limelight" exhibition at the National Museum of Natural History. Photo by Vic Krantz.



National Museum of Natural History entomologist Dr. Donald Davis examines a fossilized insect preserved in amber -- one piece of a large and scientifically valuable collection of Dominican Republic amber recently acquired by the Museum. Photo by Vic Krantz.

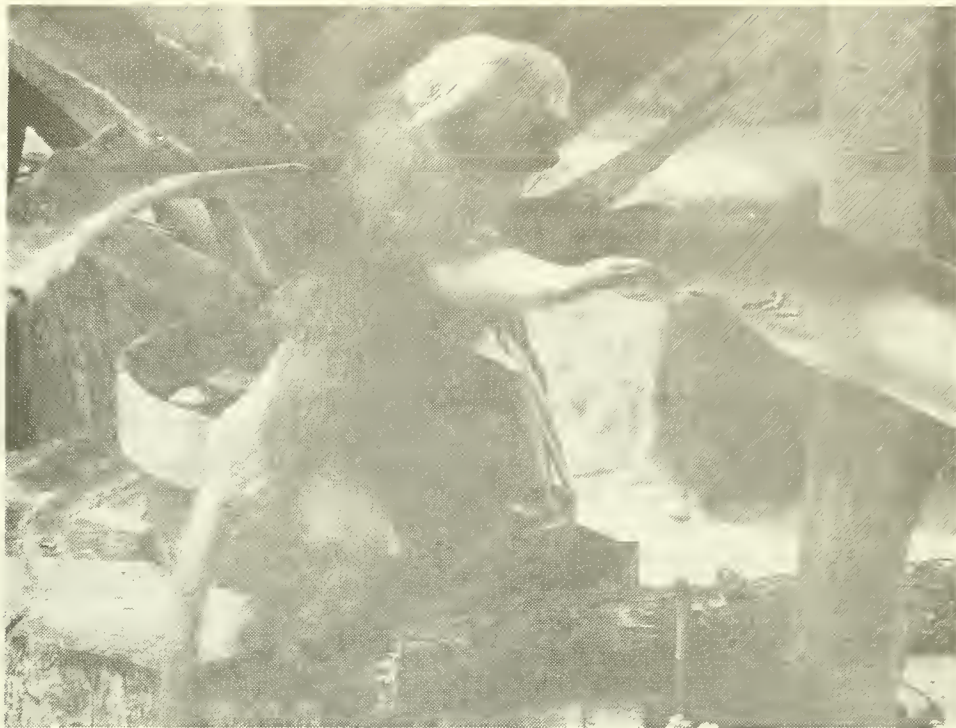
<u>Source of Funds</u>	<u>FY 1985</u>		<u>Projected FY 1991</u>	
	<u>Full-time Employment</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>Funds (\$000s)</u>
Federal Salaries & Expenses	1,291	\$55,589	1,557	\$ 78,685
Unrestricted trust	79	7,709	79	8,464
Restricted trust	8	3,389	6	2,663
Federal Grants & Contracts	<u>153</u>	<u>15,484</u>	<u>141</u>	<u>13,676</u>
Total	1,531	\$82,171	1,783	\$103,488

In FY 1985, total resources amounted to approximately \$82,000,000 and 1,531 full-time employees. Total funding consisted of approximately 68 percent federal appropriations, 19 percent federal grants and contracts, and 13 percent nonappropriated unrestricted and restricted trust funds.

Future Year Prospectus

The challenges posed to the world as we move towards the year 2000 are multifold. Deterioration of our natural environment with attendant loss of biological diversity, the search for new food and medicinal resources, and the quest to understand what lies beyond our own planet, are but a few examples. These issues serve as the backdrop for setting Smithsonian research goals. The Institution's unique resources must be marshalled not only to engage in fundamental research in the aforementioned fields, but to inform the public through exhibitions and educational programs of the complexities of these issues.

Within the last several years, considerable attention has been paid by policymakers to the accelerating pace of destruction of tropical forest ecosystems. These areas have been described as the "cradle of life", and serve an important role in preserving the global environmental balance, and preserving genetic diversity. New food resources, as well as elements for new medicinal products, are found in these fragile regions. Continued destruction of these areas results in more rapid extinction of species, most are yet undescribed, and threatens man's continuing existence. Crucial to resolving these issues is a fundamental understanding of what the tropics are all about, in terms of basic description of plants and animals, and in associated ecological/evolutionary processes. More than any other institution in the world, the Smithsonian because of its collections, staff and field locations is most suited to undertake research on these problems. Over the next five years, scientists from the National Museum of Natural History (NMNH) will devote increased attention to biotic surveys of tropical and subtropical regions, engaging in systematic and evolutionary studies. Training of students and scientists in scientific techniques will be a major component of this effort. As the U.S. custodian of substantial tropical forest tracts, the Smithsonian Tropical Research Institute (STRI) in Panama will continue its pioneering studies in tropical biology. The geographical advantages of Panama allows STRI to conduct research/training programs on a year around basis in the tropics.



Training a Golden Lion Tamarin to take food from a bromelind in preparation for reintroduction to the wild in Brazil.



The Golden Lion Tamarin exhibition at the National Zoological Park documented the ten-year effort to breed the near-extinct species and to train them for reintroduction to the wild. This is a major conservation effort undertaken in cooperation with the Brazilian government. Photos by Jessie Cohen.

Selected staff hirings in soil ecology and biochemical evolution will be sought to enhance capabilities in the field. The National Zoological Park (NZP) plans to strengthen its activities in the tropics by developing its capacity for research and training relating to the captive management of animals, especially aquatic and invertebrate species, and by further investigating strategies for reintroducing zoo-bred animals into the wild.

Smithsonian research also examines processes in the earth's temperate zone, and a major effort is to assess the feasibility of a National Biological Survey by the Museum of Natural History and associated institutions. Scientists at the Environmental Research Center in Edgewater, Maryland will continue to expand on their unique data base to quantify estuarine environmental processes, and to examine landscape ecology and habitat restoration plans.

Understanding our universe is the focus of research activities at the Astrophysical Observatory (SAO). During the period FY 1986-91, SAO plans to develop an array of submillimeter telescopes that would represent a bold next step in the exploration of this major frontier in ground based astronomy. By studying the universe with instruments of high resolving power at submillimeter wavelengths, observations can be made of the birth of stars, research can be furthered on cores of quasars and galaxies, and perhaps other planetary systems can be detected. The Air and Space Museum (NASM) will continue to expand its research capabilities in image processing of space borne missions to gain further insights into the mechanisms that form and modify planetary surfaces. In addition, historical research will continue to document man's progress in probing beyond our own planet.

An increasing necessity of modern day research is the replacement of existing research equipment, and acquisition of new state of the art equipment. Computers and other instrumentation are as vital to today's scientists, as the microscope was to 19th century scientists. Selected increases will be sought during this period to provide an adequate level of equipment and related support for the research bureaus. Just as important to the Institution's research efforts as equipment and other technical support are adequate physical facilities. Planning is underway for the development of research/support facilities at the Tropical Research Institute and Astrophysical Observatory (i.e., the Whipple Observatory atop Mount Hopkins, Arizona). An request of \$3,900,000 for the Tropical Research Institute is contained in the FY 1987 budget for a new laboratory/conference complex, and \$4,500,000 for a support base camp at the Whipple Observatory. Further facilities sums will be sought for the Tropical Research Institute in future years. During the period FY 1986-91, planning will be undertaken for Air and Space Museum storage and exhibit areas at Dulles International Airport. Renovation and new construction must occur at these bureaus to strengthen programs and to meet new responsibilities. Additional information on facilities requirements is presented in the Facilities chapter.

Another important component of the Institution's responsibility to diffuse knowledge are the exhibition programs. At the Zoo, most of the original Master Plan is expected to be completed during the forthcoming planning period. New exhibits will include invertebrates such as insects and spiders, and a comprehensive one which will cover aquatic animals,



The SUBMILLIMETER TELESCOPE ARRAY, shows artist's conception of the six-element array of radio telescopes proposed for observations in the submillimeter wavelength band of the electromagnetic spectrum. The movable antennas would be mounted on a Y-shaped track.

including fish. At the Natural History Museum it has been recognized that advances in biological, physical, and anthropological sciences are outpacing the rate at which permanent exhibits are being renovated, causing many displays to be badly out of date. Accordingly, the Museum will be seeking added resources to maintain the scientific integrity of its permanent exhibit halls. The Air and Space Museum will continue to develop innovative exhibitions. The new IMAX film "The Dream is Alive" premiered in early summer and another is under development for the Air and Space Museum's Langley Theater in FY 1987.

Overall levels of Science operating funds are expected to reach about \$103,500,000 and 1,783 staff in FY 1991. Most of the increase is associated with appropriation needs of the Natural History Museum, the Zoological Park, and the Astrophysical Observatory. Availability of restricted and unrestricted trust funds is expected to increase slightly. Future year levels of federal grant and contract work are difficult to project at this time because of the uncertainty surrounding NASA support of the Astrophysical Observatory's research programs but are expected to increase somewhat over current levels. Detailed projections for Science bureaus appear in Appendix I.



A group of high school students conduct biology experiments on the wharf at the Smithsonian Environmental Research Center. Photo by Roger P. Watts.

HISTORY AND ART

Although the Smithsonian, almost since its inception, has collected works of art and artifacts of historical, social, technological, and cultural importance, it was not until 1923 when Charles Lang Freer gave his collection of Oriental and American art to the Smithsonian that an entire building was dedicated to these purposes. Even so, this Museum was built solely for the Freer collection and it was not until 1964 that the Museum of American History (then called the Museum of History and Technology) opened its doors. The 1960s and 1970s were years of marked growth in the history and art collections and this was reflected by building expansion as well. In 1968, a permanent home was finally found in the Old Patent Office Building for the long standing collections (begun in 1829) of what is now known as the Museum of American Art, and the National Portrait Gallery which was founded in 1962. Beginning in 1970, the Patent Office Building also became home to the Archives of American Art. Together, these three bureaus form a unique concentration of collections, research resources and scholarly expertise in the history of American art; further development of these resources is planned for the next five years and beyond. The Anacostia Neighborhood Museum, which presents exhibitions, and interpretive and educational programs relating to black history and culture in America, was founded in 1967 and in New York, the Smithsonian accepted the former Andrew Carnegie Mansion as a home for the Cooper-Hewitt Museum, the Smithsonian's Museum of Design. The 1970's witnessed the opening of the Museum of American Art's Renwick Gallery, which exhibits American crafts, decorative arts and design, and the Smithsonian's museum of contemporary and modern art, the Hirshhorn Museum and Sculpture Garden. In 1979 the Smithsonian took under its wing the Museum of African Art, which portrays the rich artistic heritage of sub-Saharan Africa through traditional sculpture, musical instruments and textiles. Most recently, the collections of Dr. Arthur M. Sackler were accepted in 1984 and in a few months the gallery bearing his name will be ready for occupancy in the Smithsonian's Quadrangle.

In addition to these museums, History and Art at the Smithsonian includes the Joseph Henry Papers Project -- a long-term effort to study and publish the papers of Professor Henry, who was a leading 18th Century scientist and the first Secretary of the Smithsonian -- and the Office of American Studies. These activities, as well as the aforementioned museums, are all overseen by the Office of the Assistant Secretary of History and Art which also administers the trust funded Collections Acquisition Program. Further discussion of the Office of American Studies and the Collections Acquisition Program is in the Special Programs chapter to provide consistency with the FY 1987 budget submission to the Office of Management and Budget.

Current and Projected Resources

As the history and art collections have grown, so have the resources associated with their exhibition, care, and research. Current funding for History and Art activities consists of a mixture of appropriated federal funds, infrequent federal grants and contracts, nonappropriated restricted

trust funds, and allocations of nonappropriated unrestricted trust funds. In FY 1985, resources available to History and Art programs amounted to approximately \$36,500,000 and 797 full-time positions. About 76 percent of the dollar figure and 89 percent of the personnel represent federally appropriated support for basic exhibit, research, education, and administrative activities of the museums and galleries. Most of the balance consists of resources associated with trust operations, with only a small portion originating in federal grant and contract work. A breakdown of FY 1985 and projected FY 1991 levels of resources follows:

<u>Source of Funds</u>	<u>FY 1985</u>		<u>Projected FY 1991</u>	
	<u>Full-Time Employment</u>	<u>Funds (\$000)</u>	<u>FTE</u>	<u>Funds (\$000)</u>
Federal Salaries & Expenses	712	\$27,806	864	\$42,111
Unrestricted trust	42	4,020	34	3,220
Restricted trust	42	4,508	45	5,158
Federal Grants & Contracts	1	196	-	50
Total	797	\$36,530	943	\$50,539

Unrestricted trust fund support is concentrated primarily in the Cooper-Hewitt Museum, Archives of American Art, and Museum of American History. Restricted trust fund support is largely directed to the operations associated with the Freer Gallery of Art, the Cooper-Hewitt Museum, and the Archives of American Art. Most of the of grant and contract work is present in the Cooper-Hewitt Museum.

Generally, the Museum of American History, the Museum of American Art, the Hirshhorn Museum and Sculpture Garden, the Portrait Gallery, and the Arthur M. Sackler Gallery are supported predominantly with federal funds. Their exhibition, research, collections management, and building operations comprise their major expenses. Each of these museums, however, has small amounts of trust funds (up to 10 percent of the total resources) made available by donors for specific purposes, and from proprietary activities (bookstores, museum shops, cafeterias and the like), on their respective premises. These latter funds are used for a variety of program purposes.

Other History and Art bureaus -- the Freer Gallery of Art, Cooper-Hewitt Museum, Museum of African Art, Archives of American Art -- work with more evenly mixed financing. Most of the Freer's principal programs are financed by the income from a restricted endowment fund established by Mr. Freer's Will; federal funds support the costs of protecting and managing the collections and building, and general administration. The Cooper-Hewitt Museum receives an annual allocation of Smithsonian unrestricted trust funds to help support its programs; beginning in 1979, federal funds supported a small portion of the exhibition program as well as the costs of maintaining and protecting the building and collections and a share of administrative costs. In addition, the Cooper-Hewitt



This illustration, Kedara Ragini, comes from the earliest dated (1591) Ragamala series known. It is a new acquisition of the Freer Gallery of Art.

Museum raises in excess of a million dollars annually to support its exhibitions and related educational activities. The Museum of African Art raises from \$25,000 to \$50,000 per year from private sources to finance educational activities and acquisitions. The Archives of American Art's Board of Trustees raises between \$500,000 and \$600,000 each year to support more than one-half of the Archives' program.

In addition to this general pattern of fund availability and use, the History and Art units are eligible for allocations from the special trust fund Collections Acquisition, Scholarly Studies, Education and Special Exhibition Programs, and from the Special Foreign Currency Program. They also enjoy the presence of interns and pre- and postdoctoral research fellows selected competitively through the Smithsonian's fellowship awards program and funded with nonappropriated unrestricted trust funds.

Future Year Prospectus

Completion of the Quadrangle and establishment of its programs remains the top priority for the next several years. The building will house the Sackler Gallery and the African Art Museum, along with the International Center. The two museums will begin occupying the new building during 1986 and the grand opening is scheduled for early 1987. Federal resources for program development in such areas as collections management, exhibitions and education, will amount to about \$7 million for both museums. These federal resources are in addition to those required for basic building management, security, and utility costs and other program support which, by 1991, should total about \$12 million. Programs and operational resource projections for occupants of the Quadrangle are summarized in Table 5.

Completion of a new wing at the Anacostia Neighborhood Museum's (ANM) Fort Stanton site is planned for FY 1986. This wing should enable the ANM to discontinue the lease on the old Carver Theatre and consolidate all of its activities -- exhibitions, education, and research staff -- in one location. A comprehensive survey of collections begun in FY 1985, with the National Museum of American History, to identify artifacts and material with significant Black American relevance will also be completed in FY 1986. Study of these materials will lead to new insights and will also result in a greater understanding of the history and culture of Black America. Through such initiatives, the Anacostia Museum will be seeking a stronger role in its educational activities and in planning for further development for the 1990s.

The emphasis on collections management, research and automation will continue as History and Art priorities for the next several years. The collections inventory recently completed has helped to focus attention on the growing problems of collections storage, conservation, and preservation. Storage conditions need to be improved for the safety and preservation of the collections objects and to provide greater accessibility by scholars and others. History and Art operations which will need improved storage and related areas are the Freer Gallery of Art, Museum of American Art, the Portrait Gallery, Archives of American Art, Cooper-Hewitt Museum, and the Hirshhorn.



Horse, by Deborah Butterfield, done in steel, wire and metal armature was acquired by the Hirshhorn Museum and Sculpture Garden in 1985.

In 1984, the Congress transferred the Old Post Office Building to the Smithsonian. Federal appropriations to begin planning the renovation of the building have been requested for FY 1987. Actual work, however, will not be started until the current tenant, the International Trade Commission, has new quarters. Present plans call for this building to be used as an extension to the Patent Office Building which houses American Art, the Portrait Gallery, and the Archives of American Art. Together, these three organizations -- their collections, historical documents and staff resources -- form the nucleus of what has become a major center for the study of American art and material culture. Creation of an auditorium, classrooms, study rooms, galleries and the like will enable these three bureaus to accommodate public demand for programs, and continued development of resources, including research programs, exhibitions, lectures, publications and collections management. Funding will also be requested to strengthen the automated research files and information on American art and sculpture, and to increase scholarly and public accessibility to the material through new developments in computer technology.

Improving the care of collections also is contemplated by the Cooper-Hewitt Museum. Selected staff growth is projected over this period to provide professional care to the wall covering collection, which currently has no curator, as well as to increase professional curatorial assistance in the prints and drawings, decorative arts, and textiles departments. Space improvements are also planned. The Carnegie Mansion renovation in the 1970s resulted in climate controlled areas and conservation facilities for the prints, drawings, and textiles collections. Significant improvements in space for the large and important decorative arts collections (furniture, glass, etc.) and the wall covering collection, now housed in out of the way areas in the mansion and the adjacent deteriorating Miller House, are planned. Creation of collection storage areas, and exhibition and education facilities are basic to future year operations of the Cooper-Hewitt. To this end, Congressional authorization is being requested in FY 1986. A construction appropriation request is planned for FY 1989 in the amount of \$11.5 million, (about half of the total cost with the other half to be raised privately). This project will assure the safekeeping, care and exhibition of these collections for generations to come.

These various construction and renovation efforts represent by far the largest need for direct new funding on the part of History and Art bureaus of the Smithsonian. Additional information is contained in the Facilities chapter and the Beyond 1991 chapter of this document.

The Museum of American History has not been immune to the pressures for more space. In 1985, the Museum began to plan the move of some collections and objects from the Mall to the Institution's Museum Support Center in Suitland, Maryland. During FY 1986, the process continues with refinement of records, photographing, cleaning, packing and storing objects in anticipation of eventual transfer. Relocation of collections to the Support Center will free valuable museum space for exhibitions and provide safer and more secure environmental conditions for individual objects.



One of the Cooper-Hewitt's recent acquisitions is this Mural, designed by Lydia Bush-Brown (circa 1920) done in resist dye techniques on plain-weave silk.

The Museum of American History's first major reinstallation of a permanent exhibition, "After the Revolution: Everyday Life in America, 1780-1800," opens in October, 1985 and constitutes a major new interpretation of what makes our country what it is today. In FY 1986 the Museum will open its second major permanent exhibition entitled, "Engines of Change: The Industrial Revolution in America, 1790-1860." This project will show how the Industrial Revolution in America brought tools for transforming energy, new ways of organizing work, and a new entrepreneurial spirit to the United States. As outlined in previous years, the gradual reinstallation of new permanent exhibitions, given necessary financial support, will take place at the pace of at least one a year. A proposed major exhibition on "The Information Revolution," is in the planning stages and will address the history of and recent changes in the processing and communication of information and its profound effects on all parts of society. Major financing by the private sector will be sought for this exhibition.

During this same five year period, the Museum of American History plans to improve its research capabilities through the creation of a research center for the study of American History. This program would combine existing research centers at the Museum, formalize existing relationships with several universities, promote new affiliations, and provide encouragement and opportunity for intramural research. In addition, the Museum will continue over the planning period to perfect its automation systems, replace hardware and software, and develop applications for collections and management functions. In FY 1986, the Museum also will begin a long range planning program which will project space requirements of the Museum for the next twenty years.

The bicentennial of the United States Constitution will be the second of the major celebrations marking the birth of our nation (the bicentennial of the American Revolution in 1976 being the first). This historic period (the draft of the Constitution was approved in September 1787 but not fully ratified until July 1788) will be marked with exhibitions, lectures, film, and symposia which will reacquaint today's generation with the historical context of our constitutional roots and their development over time. In particular, the Museum of American History will open, in 1987, an exhibition and related programs on "The Japanese-American Experience in World War II." This exhibit will deal with the complex problems facing national and state decision makers during World War II, when they had to balance constitutional guarantees of civil rights against the perceived requirements for military security. The exhibition will particularly focus on issues of civil rights for Japanese-Americans and on their patriotic contributions during World War II. "The Portrait in America from 1700 to 1776" will, through portraits of the period, serve as a valuable source of information about American culture during the period leading up to the drafting of the Constitution. This exhibition will open at the Portrait Gallery in 1988. In the spring of 1989, the Portrait Gallery will offer "Portraits of Distinguished American Jurists," an exhibition which will evoke the rich personalities and abilities that came into play in determining the evolution of this country's legal processes and institutions.

To meet the goals outlined for the next five years, it will be necessary throughout History and Art to add staff positions primarily in research, collections management, conservation, exhibitions and education. To this end, budgetary adjustments within bases will be made and some new resources, both federal and trust, will be sought, as detailed in Appendix I.

History and Art resources are projected to increase to about \$50,500,000 and 943 staff in FY 1991. Most of the increase is associated with appropriation needs for the programs being housed in the Quadrangle, the Cooper-Hewitt Museum, Museum of American History, Museum of American Art, the Portrait Gallery, and the Archives of American Art. Restricted and unrestricted expenses are expected to increase to about the \$8,300,000 level, and grant and contract activity is expected to continue to be only a small portion of overall resources. Detailed projections for History and Art are contained in Appendix I.

PUBLIC SERVICE

The Public Service programs are the central focus for the Institution's "diffusion of knowledge" activities. These are: Smithsonian Magazine, contained within the Associates Program chapter because of the general support the Magazine provides to many programs of the Institution and because it is viewed as a major benefit to Associates; Smithsonian Institution Press, including the University Press publications, popular books marketed through direct mail, and the Smithsonian Recordings Program; Office of Elementary and Secondary Education, contained within the Special Programs chapter to provide consistency with the FY 1987 budget presentation; Visitor Information and Associates' Reception Center; the Office of Telecommunications; the Office of Smithsonian Symposia and Seminars, and the Office of Folklife Programs. The latter two offices also are incorporated within the Special Programs chapter to be consistent with the budget submission. The Office of Smithsonian Symposia and Seminars and the Office of Folklife Programs carry out research activities in conjunction with their outreach activities. The vigorous growth of Smithsonian outreach trust funded programs can be attributed largely to the success of the Magazine. Through the application of trust funds generated by the Magazine and other revenue producing activities, a variety of valuable conferences, publications, and other projects have been made available in recent years to the public. While enriching the kinds of services provided, the Institution at the same time has been able to reduce the requirements for federal appropriations.

Current and Projected Resources

Resources in FY 1985 devoted to Public Service activities amounted to about \$17,400,000 and 122 full-time employees. Total funding in FY 1985 consisted of approximately 13 percent federal appropriations and 86 percent nonappropriated unrestricted trust funds. The largest amount of support for Public Service programs comes from the Institution's trust operations, and unrestricted trust fund support is, for the most part, concentrated in the expenses of the Smithsonian Press which derives these resources from the sale of trust funded books and records, royalties and special publishing services. These funds support about one-half of the Press' staff and also provide for the necessary services required to develop, market, warehouse, and distribute records and scholarly and general interest books, which are published in connection with the Institution's research, collections, exhibitions, and other programs. Federal appropriations largely support the publication of the basic technical and scientific series distributed by the Government Printing Office, other publications and conferences, and a portion of the staff and operations of the Institution's centralized film and television operations. The Visitor Information and Associates' Reception Center and the Office of Telecommunications are operated primarily with trust funds, and some additional resources will be required over the period as work proceeds toward realization of a central facility in the Castle for visitor information services. Restricted purpose funds are occasionally obtained for support of special activities sponsored by various units; for example,

these funds support major film projects of the Office of Telecommunications.

A breakdown of FY 1985 and projected FY 1991 levels of resources follows:

<u>Source of Funds</u>	<u>FY 1985</u>		<u>Projected FY 1991</u>	
	<u>Full Time Employment</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>(\$000s)</u>
Federal Salaries & Expenses	52	\$ 2,256	52	\$ 2,483
Unrestricted trust	70	15,056	78	19,567
Restricted trust	-	131	-	-
Federal Grants & Contracts	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	122	\$17,443	130	\$22,050

Future Year Prospectus

The principal goals of the Public Service programs over the next five years are to enhance their capacities to diffuse knowledge and information and to reach broader regional, ethnic, and racial communities, and scholarly and cultural associations through the development of new and appropriate outreach activities. These goals will be achieved in part through support for model outreach projects designed to increase scientific and cultural literacy, and through the development of a more serviceable national distribution network to provide public access to educational and informational aids produced by the Institution's bureaus. These endeavors will involve the coordination of public service activities with business management, educational activities, and scholarly research projects throughout the Institution. What is foreseen is an overall effort which will provide educational institutions, foreign and domestic, with new teaching and learning materials designed and produced from the resources of Smithsonian scholars and collections. In addition some existing materials may be suitable for republication in new formats.

An example of the educational value of Smithsonian resources and activities is the major series for public television, Smithsonian World, being broadcast for a third year with financial support from the McDonnell Foundation. The program presents subjects and study areas related to Smithsonian interests.

The Smithsonian Press publishes for libraries, museums, scientific institutions and interested members of the public, the government funded scientific, technological, and historical monographs of Smithsonian curators and staff experts. The Press also and designs federally financed exhibition catalogs, educational pamphlets, and information leaflets that serve the millions of visitors to the Smithsonian in Washington, D. C. and extensive programs conducted all over the nation. These services will



These thirty-foot effigies of Ravana, an Indian demon, were burned on The Mall in an evening highlight at the nineteenth annual Festival of American Folklife. Photo by Jeff Tinsley.



Dance parties held each evening at the end of the Festival of American Folklife afforded downtown workers an opportunity to come enjoy music and participate in some of the festivities before heading home. Photo by Jeff Tinsley.

continue throughout the planning period. The Press also publishes with trust funds scholarly and general interest books of high quality, together with recordings which preserve significant developments in the history of American music.

Over the planning period, only minor growth in federal resources is projected. Some additional trust funding is forecast for the Visitor Information and Associates' Reception Center to provide an increase in services to the general public and to respond to an expected growth in telephone and written inquiries. Over the period, work will proceed towards establishing a cultural facility in the Castle Building for visitor reception and information services. Overall trust funded activities are projected to increase from about \$15,200,000 in FY 1985 to approximately \$19,600,000 in FY 1991, but much of this is attributable to increases in expenses associated with revenue producing activities of the SI Press. Also, over the planning period ways will be considered to continue to enhance outreach programs, such as the Smithsonian News Service produced monthly by the Office of Public Affairs and the radio, film, and video production activities of the Office of Telecommunications (including Smithsonian Galaxy, Radio Smithsonian, and Here at the Smithsonian), and the various worthwhile proposals that come forth from the bureaus. Detailed projections for Public Service Bureaus appear in Appendix I.

MUSEUM PROGRAMS

Museum Programs consists of the Office of Museum Programs, Conservation Analytical Laboratory, Office of the Registrar, Office of Exhibits Central, Smithsonian Institution Libraries, Smithsonian Archives, the Traveling Exhibition Service, and the National Museum Act. The Office of Horticulture and South Group Buildings Management also report to the Assistant Secretary for Museum Programs. Resources associated with these latter activities appear in the chapter on Administration, Financial and Other Support Services to be consistent with the budget presentation to the Office of Management and Budget. Collectively, these units provide a number of specialized services and programs to museums and research bureaus of the Institution and to the museum community at large. Most of these services relate to fundamental aspects of museum development and operations, such as collections management, conservation, production of exhibitions, training for museum professionals, and bibliographical and archival support for research. Other activities -- traveling exhibitions, grant awards and technical assistance programs -- make it possible for the Institution to share many of its resources with museums and similar organizations throughout the United States and abroad.

Museums today are recognized as important elements in the cultural and educational fabrics of both developed and developing nations and public and private organizations which support museums are paying increasing attention to the effectiveness and strength of their performance. More than ever before, museums are held accountable for the quality and condition of their collections, for the educational values of their exhibitions, and for the significance of their research and informational programs. In response to these changing perceptions, museums have begun to assign higher priorities to certain basic functions, particularly collections management and conservation, which traditionally have received less than adequate support. This heightened concern has created a need for better trained personnel in all areas of museum operations, for improved systems, and for an expansion of conservation services based on sound scientific analysis of the materials which make up museum collections. In addition, museums require strong library and archival resources to support their research and informational activities. Currently available resources can be expanded substantially by providing greater access to the growing number of networks of computerized bibliographic data bases, and through application of automated data processing systems to many library functions previously performed manually.

Much of the effort of the organizations within the Museum Programs function of the Institution is directed to these and similar issues. Over the planning period these units intend to strengthen their capabilities to assist the Institution and other museums to meet these critical needs.

Current and Projected Resources

The overwhelming proportion of support for the bureaus and offices of the Museum Programs organization in FY 1985 comes from federal appropriations. Of the approximately \$14,000,000 available for Museum Programs

activities \$18,000,000 or 70 percent are provided by federal support. A breakdown of FY 1985 and projected FY 1991 resource levels follows:

<u>Source of Funds</u>	<u>FY 1985</u>		<u>Projected FY 1991</u>	
	<u>Full-time Employment</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>Funds (\$000s)</u>
Federal Salaries & Expenses	218	\$ 9,920	287	\$15,937
Unrestricted trust	40	2,489	57	3,036
Restricted trust	4	1,533	-	1,000
Federal Grants & Contracts	-	14	-	-
	—	—	—	—
Total	262	\$13,956	338	\$19,973

Only the Traveling Exhibition Service has the majority of its support provided from unrestricted (\$1,757,000) and restricted trust funds (\$905,000) which constitute 88% of its resources in FY 1985. Limited trust fund support is available to the Smithsonian Institution Libraries and Archives for support of staff and related costs. In FY 1982, the Kellogg Foundation awarded the Office of Museum Programs (working in conjunction with the Resident Associate Program) a three year grant to foster the educational influence of museums. Apart from this, the Office of Museum Programs has revolving trust fund budgets to receive revenues for handling and shipping costs associated with audiovisual programs on conservation information. The Office of Horticulture, South Group Buildings Management and the Office of Exhibits Central have small trust fund accounts to provide support for trust fund activities.

Future Year Prospectus

Over the planning period, federal resources for Museum Programs units (excluding the Office of Horticulture and South Group Buildings Management) are expected to increase from \$4,000,000 to about \$20,000,000. The greatest part (about \$3,300,000) of this projected increase is associated with expanded library services and facilities, and with the work of the Conservation Analytical Laboratory. Only modest increases are forecast for museum training activities, archival programs, and exhibits support services.

The relocation of the Conservation Analytical Laboratory to the Museum Support Center and the expansion of its training and archaeometric research programs is a development of major importance to the Institution and to museums generally.

With regard to collections oriented research, the brochure prepared in 1977 to describe the then proposed Museum Support Center spoke of the importance of collections research in these terms: "Collections of objects and works of art represent the physical evidence of man's inventiveness and creativity and the environment in which he has evolved.

Without objects, we would be unable to understand natural process, or the aspirations and achievements of the civilizations which preceded ours and which document our common origin and heritage. With objects, we can -- through direct observation and tactile experience -- grasp with greater clarity a sense of the forces that helped to shape those civilizations. The knowledge we get from the study of these objects provides new perspectives for understanding and influencing the directions in which mankind is moving."

Many areas of research at the Smithsonian have been traditionally driven by the collections. Currently, various bureaus are engaged to differing degrees in research on their diverse collections, and Appendix III contains some descriptions of these activities. In future years, use of the collections for research at the Smithsonian will increase. The recent inventory has brought into focus for Smithsonian and other researchers the variety, range, and depth of the collections, and the information potential they represent. The establishment of research and conservation laboratories and curatorial areas at the Museum Support Center, the provision of additional internships and fellowships, the regular upgrading and replacement of research equipment, plans for increasing skilled personnel and the growing importance of the Institution's international functions combine to provide a strengthened base from which collections oriented research can receive greater emphasis in future years. In addition, archaeometric studies will become increasingly important. In studying man-made objects, form and decoration have classically been the differentiators establishing provenance. With the advent of archaeometry, the chemical composition, internal structure and other physical characteristics of objects can be quantified and statistically analyzed by computer techniques. Such studies need large numbers of objects of known provenance to be sampled, accurately measured and the data stored in an accessible manner. The Smithsonian Archaeometric Research Collections and Records (SARCAR) of the Conservation Analytical Laboratory have been set up to focus research in this area and to maintain a bank of data and samples.

All of the Conservation Analytical Laboratory's (CAL) functions -- conservation treatment, conservation science and archaeometry -- moved to the Museum Support Center in the fall of 1983 and occupy new laboratory and work areas totaling approximately 40,000 square feet. This space also will accommodate the program activities of the Institution in conservation training. Phased growth of staff and resources to make proper use of these new facilities will occur throughout the planning period. Specialized equipment has been acquired and installed, recruiting activities for qualified conservation and scientific personnel have been pursued vigorously. Initial activities for the training program have been planned; possibilities and directions are being explored and discussed with representatives from the major conservation training programs, with conservation professionals and with local academic institutions. The internal staff structure of the Laboratory has been reorganized to accommodate its larger size and its several specialized functions. Working from these foundations, the Laboratory will be in a substantially stronger position to offer increased support to the Institution's museums and to museums generally through its research programs in conservation technology, conservation science and archaeometry, its information program

for conservation professionals, its training activities and its support activities in conservation treatment and analysis. A major thrust will be to coordinate and integrate these staff and facility resources effectively to broaden the range of expertise available for the training program, to provide a broader technological base for new work in conservation treatment, and to make full use of modern instruments and analytical methods to provide answers to important questions in conservation, archaeology and art history.

Work in archaeometry thus far has centered on chemical, microscopic, and petrographic analysis of objects and materials to determine questions of provenance and historic technology. In addition, neutron-induced autoradiography of paintings has been used in combination with other examination methods to give critical information on technique and attribution. These methodologies will continue, and others such as isotope analysis will be extended. Effective use of physical and chemical data derived from objects to determine their place in time or their origin depends upon comparison with an adequate data base. At present, these data bases and samples from objects of interest are scattered throughout the country and have limited uniformity of quality control. The Archaeometry Department of the Laboratory operates the Smithsonian Archaeometric Research Collections and Records (SARCAR) in order to bring these data together at a single point and to apply uniform criteria to them. SARCAR is essential to research on collections. It is a source of reference materials (petrographic thin sections, metallographic sections, etc.) and data (neutron activation, X-ray diffraction, electron microscope analyses results, etc.). The Smithsonian is committed to the establishment of a research center at CAL for technical and analytical studies, involving staff and visiting scholars. The archaeometry program will grow during the planning period and will enhance the Smithsonian's ability to use and preserve data in a meaningful and effective manner. The Laboratory plans to improve its methods of gathering and disseminating other data to serve practicing conservators and the general public. It will work closely with the Office of the Registrar in development of policies and procedures for the control of information and collection materials passing through the Laboratory.

The first steps to be taken in the conservation training program will be a series of seminars and specialist and refresher courses directed toward practicing conservators, and the establishment of practical internships for students in academic conservation training programs and advanced training internships for graduates of such programs. Based upon the experience gained with these activities, and the results of a careful evaluation of the profession's needs in training, the further evolution of the program will lead to the incorporation of other training activities.

The branch library at the Support Center will also work in close concert with the Laboratory to provide bibliographic resources needed. The training section of the Office of Museum Programs will continue to participate in the development of the conservation training program and will assist in the production of audiovisual resources needed for the training, research, and treatment functions.

In addition to direct involvement with the Museum Support Center through the Laboratory and Library operations, the Assistant Secretary for Museum Programs participates in equipment acquisition and space utilization planning for the Center. The development and establishment of the Center's collections management systems and environmental practices also will continue to be a concern of that office.

Completion of the initial inventory of Smithsonian collections in June 1983 was a landmark in the development of improved collections management policies for the Institution. The inventory produced vital base-line data on current holdings which will enhance and clarify existing acquisition and catalogue records and serve as a base for computerized record keeping systems in the future. The inventory, however, is only one aspect of collections management which also involves accountability procedures contained in the collections policies and information management techniques of the Museums. These provide knowledge about and access to all of our objects and specimens. An additional two positions will be requested during the planning period to aid the Registrar in monitoring the compliance of individual museums with institutional collections management policies. This unit will continue to develop, oversee and coordinate the policies and practices related to the management of collections. The Office will evaluate the experience of the recent inventory effort to generate up-dated policies and plans for new inventory cycles appropriate to the nature and size of the collections of each of the museums, and it will continue to monitor future inventory activities. The Office will work closely with all museums to improve and refine their individual collections policies and, in cooperation with the Office of Museum Programs, will develop and offer training programs for Smithsonian personnel in collections registration and related functions. The Office of the Registrar will continue to oversee the affairs of the Smithsonian's Registrarial Council and will assemble collections management information for dissemination through that group.

The Smithsonian Institution Libraries (SIL) reached its goal of implementing an automated library system in FY 1985, a project which had been planned since 1980. The system will support wider and more effective use of book, manuscript, and graphic resources and will provide on-line access to additional bibliographic information held in library network databases; the Smithsonian Institution Bibliographic Information System (SIBIS) passed to the administration of the Institution's computer center (OIRM) in FY 1984 and will also be used for museum object inventories and other local information files. With this system in place, the SIL will, for the next five years, concentrate its efforts on developing its services and on providing basic support for Smithsonian scholars, fellows and affiliated researchers. During the planning period, the research collections should be strengthened in selective ways to fill demands of the scientists, curators and their supporting staffs, as well as fellows, interns and research associates. Further, significant demands are made by the administrative and support activities of the Institution, and by outside scholars. The Institution's library system supports approximately 1,000 intensive and regular users. While the SIL will continue to borrow from other libraries to fill part of the needs of its customers, basic collections (books, journals, on-line databases) adequate for its clientele need to increase. In addition, resources will be sought over

the next five years to partially inventory and catalogue a backlog of titles; this will expand the listings and allow better access to current holdings.

A large portion of the SIL collections need some preservation attention and a significant percentage (about 25%) is beyond restoration and must be miniaturized (film, optical disc, etc.) or replaced. In addition, many collections need to be deacidified and placed in an acceptable atmosphere to prevent further paper deterioration. Resource increases will be sought to allow SIL to address the problems of preservation and deterioration.

There is a requirement for more and better space for storage and other activities of the central library facility. The Institution is considering various alternatives to solving the space need.

Smithsonian Archives (SIA) during the planning period will extend its archival and records management programs to all records-producing offices of the Institution, resulting in substantial increases in annual transfer volumes and annual growth in holdings. The Archives will continue its project to identify and describe photographic collections in the Institution, and to issue a guide based on the results of this survey. SIA will thereafter maintain and update an ongoing record of photographic resources. Further work on developing description and cataloguing down to the individual image level within collections is expected to follow the initial survey project. The Archives will expand its oral history program and will embark on a phased program of improving conservation work. A survey of scientific illustrations will be undertaken and a guide produced. SIA will maintain and update an ongoing record of scientific illustrations as part of the program in Natural History. Like the Libraries, the Archives also has space problems which will need to be solved.

The Office of Museum Programs (OMP) over the planning period will seek a gradual increase in federal support for its Native American Training and audiovisual programs. OMP will participate with other units in strengthening Native American Programs in general. The number of qualified Native Americans available to serve the more than 100 tribal museums and cultural centers remains discouragingly small, and although these museums hold remarkable and important collections of historical and ethnological materials, they lack resources to provide the required training themselves, or to obtain much needed technical assistance for their museum operations. The great popularity and heavy continuous use of the informational audiovisual programs dealing with preventive maintenance and care of collections in museums have been in great demand. OMP plans to increase the number of subjects covered by these slide sets and tapes and will require funding for professional production support to make this possible.

Annually, the Office of Exhibits Central (OEC) serves around forty Smithsonian units and is involved in some two-hundred and fifty projects. OEC is a major source of exhibit support for the Traveling Exhibition Service for its national and international exhibition programs. To maintain productive capacity in the coming years, the Office of Exhibits

Central plans to add some exhibit professionals to its staff. Increases are incorporated into the Office's projections. These new positions will help to fill Institution wide demand for design and editing services, model making, graphics production, and exhibit fabrication. In addition, the Office plans to continue to replace outdated equipment and to upgrade its shops and work areas.

The Traveling Exhibition Service (SITES) is scheduled to move into the Quadrangle where it will continue to cooperate with Smithsonian bureaus including the International Center, in the initiation, production and interpretation of exhibitions. During the planning period, SITES will expand its international exhibitions program and will continue to produce high-quality exhibitions for America's educational and cultural institutions.

SITES international programs have enjoyed great success. Good as Gold: Alternative Materials in American Jewelry is currently touring South America. The Precious Legacy: Judaic Treasures from the Czechoslovak State Collections, which opened at the Smithsonian in 1983 has completed its U.S. tour. In negotiation for U.S. tours from abroad are Ebla to Damascus, with antiquities from Syria; Renaissance Master Bronzes from the Kunsthistorisches Museum, Vienna (which will open at the National Gallery of Art in 1986); and Lost Cities, Forgotten Kings: Discovering the Ancient Civilizations of Honduras. SITES is working with the Directorate of International Activities to organize the inaugural exhibition for the International Gallery, Birth: A Ritual for Life (working title), scheduled to open April 1987. Another exhibition in the planning stages for this Gallery is Tropical Rainforests. Several other exhibitions are in the planning stages in collaboration with nearly all Smithsonian museums. These Smithsonian-originated exhibitions will reflect the broad range of the Institution's resources available to major museums, as well as to small libraries and cultural centers. Two poster panel shows currently in the making will celebrate the bicentennial of the U.S. Constitution and the life of Martin Luther King, Jr. and his role in the civil rights movement.

The National Museum Act (NMA) makes grants to museums, academic institutions, and museum associations for the purpose of enhancing professionalism in the museum community, advancing knowledge about critical museum-related problems, and disseminating information through seminars and publications. Through its various programs over the years, the Act has emphasized conservation and the improvement of preservation practices. Although conservation awareness has increased recently in the museum community and among federal funding agencies, the Act remains unique in its support of individuals who are pursuing professional training in conservation and in its funding of scientific research on both the deterioration mechanisms of objects and materials used by conservators. The Office of the Assistant Secretary for Museum Programs and the NMA staff maintain continuing liaison with professional associations in order to monitor changing museum issues and with federal funding agencies to avoid occurrences of overlap. Reauthorization is being sought for FY 1986 through FY 1990.

DIRECTORATE OF INTERNATIONAL ACTIVITIES

The Directorate of International Activities was established recently because of the growing importance of the Institution's international role in museum and collection management operations, research, exhibition techniques, and cultural and natural conservation. The function of the Directorate is to design and put in place a program to coordinate and balance all of the Institution's international activities. The International Center -- to be located in the Quadrangle Building -- the Office of Service and Protocol, and the Office of Publications Exchange are assigned to the Directorate. It also manages the Institution's Foreign Currency Program (effective October 1, 1985) and is assigned overall institutional responsibility for the events related to the 1991 Columbian Quincentenary. The Directorate's first effort was to identify the scope of the Smithsonian's current international activities, which has been published in the "Summary Profile of International Activities," which contains over eight hundred projects being conducted. The Directorate will act as liaison with federal agencies and international organizations and institutions whose activities affecting scholars of other nations are convergent with those of the Smithsonian. These efforts will be publicly reflected in programs and operations of the Quadrangle's International Center, now scheduled to open in the spring of 1987.

Current and Projected Resources

Most of the support for the Directorate in 1985 came from nonappropriated trust funds. Of the \$754,000 in available FY 1985 funds, approximately \$435,000 or 58 percent are nonappropriated. An estimated breakdown of FY 1985 and projected FY 1991 resource levels follows.

<u>Source of Funds</u>	<u>FY 1985</u>		<u>Projected FY 1991</u>	
	<u>Full-time Employment</u>	<u>Funds (\$000S)</u>	<u>FTE</u>	<u>Funds (\$000s)</u>
Federal Salaries & Expenses	9	\$ 319	13	\$2,796
Unrestricted trust	9	435	11	1,065
Restricted trust	-	-	-	-
Federal Grants & Contracts	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Total	18	\$ 754	24	\$4,161

More than three-quarters of the Directorate's federal funding in FY 1985 is associated with the preexisting Offices of Service and Protocol and the Office of Publications Exchange. The Office of Service and Protocol will continue to provide basic services necessary for the coordination of international aspects of Smithsonian research and museum programs. The Office of Publications Exchange will continue to foster scholarly interchange by enabling learned societies and universities in

the United States to exchange their publications with those of their foreign counterparts. The program staff is developing plans for the opening of the International Center in the Quadrangle. The newly appointed Quincentennial coordinator will begin to develop the overall institutional theme for the 1992 commemoration.

Future Year Prospectus

Over the planning period resources for the Directorate are expected to increase to about \$4,200,000 in FY 1991. For the Office of Service and Protocol and the Office of Publications Exchange, only inflationary growth for pay and non-salary expenses is anticipated. Modest growth is anticipated over the planning period for International Center program development, to focus on research, cultural explication, and increased public understanding of the Caribbean and Latin America. A 1988 exhibition on tropical forests will combine these new initiatives to stimulate public awareness of the international threat of deforestation. Not only will the exhibition seek to draw attention to the urgent need to preserve these rapidly disappearing biota, but it will also attempt to describe the impact of this loss on the cultures of these regions. Consistent with the exhibition theme and purpose, International Center staff will also develop a tropical biology and conservation curriculum. It is intended that the course be taught to selected students and professionals from Latin America who will apply the knowledge gained to conservation concerns in their own countries. In addition, over the planning period an International Center Visiting Scholars program will be established to foster cross-disciplinary communications on subjects related to the goals of the International Center.

The most substantial growth reflected for the Directorate in the next five years is mainly associated with the 1992 commemoration of Columbus' arrival in the Americas. This long term program will strive to stimulate public and scholarly interest in the historical background of Columbus' voyage and its impact on the past and present cultures of north, middle and south America.

SPECIAL PROGRAMS

Special Programs include the Offices of American and Folklife Studies, the International Environmental Science Program, Academic and Educational Programs (including the Office of Symposia and Seminars, the Office of Elementary and Secondary Education, and the Office of Fellowships and Grants); the Collections Management/Inventory Program; and the trust funded Collections Acquisition, Scholarly Studies, Education and Special Exhibition Programs. This chapter also contains the equipping, move and operating requirements for the Museum Support Center. The resources associated with the International Environmental Science Program, the Fellowship Programs of the Institution, the Collections Management/Inventory Program, and the trust funded Collections Acquisition, Scholarly Studies, Education, and Special Exhibition funds are generally available to all organizations of the Institution if they meet standards and selection procedures.

Current and Projected Resources

<u>Source of Funds</u>	<u>FY 1985</u>		<u>Projected FY 1991</u>	
	<u>Full-time Employment</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>Funds (\$000s)</u>
Federal Salaries & Expenses	115	\$ 8,399	130	\$ 8,445
Unrestricted trust	21	9,592	23	14,391
Restricted trust	-	485	-	490
Federal Grants & Contracts	-	43	-	850
Total	136	\$18,519	153	\$24,176

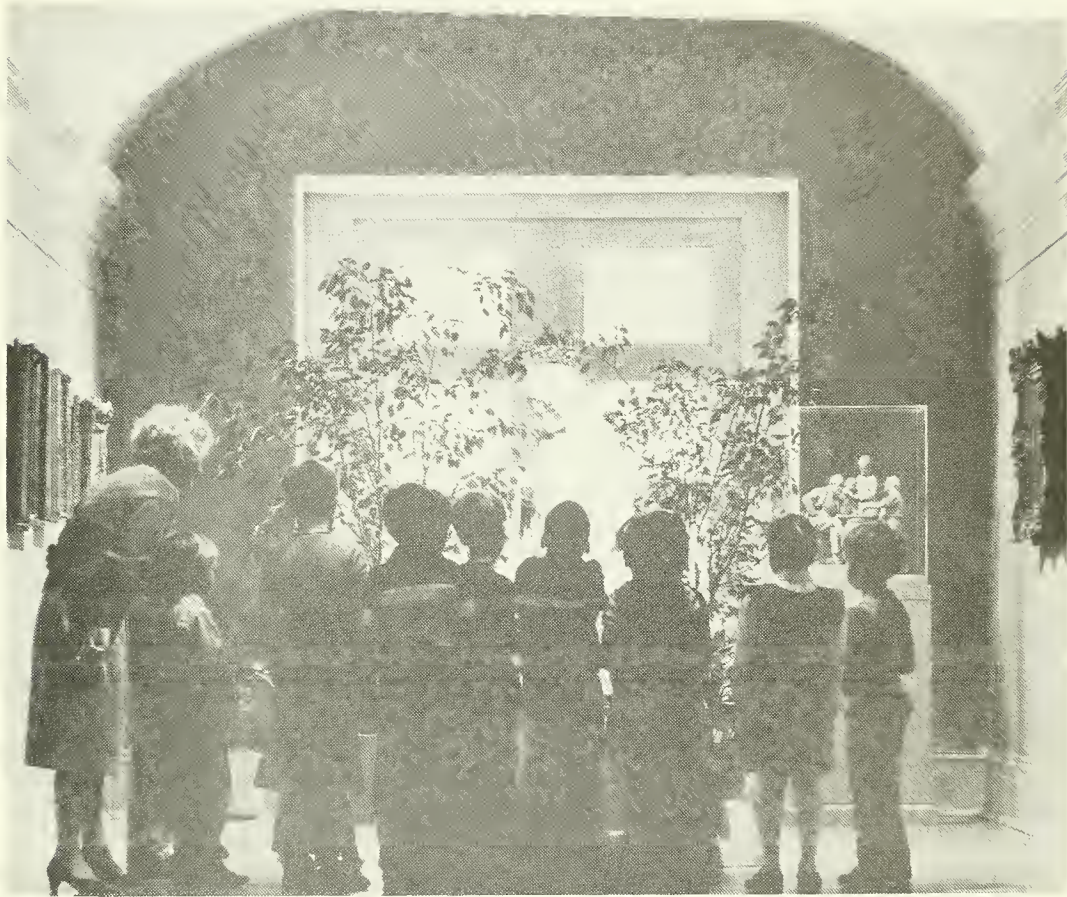
Funding patterns vary, and include programs which are funded entirely from federal appropriations to those funded solely through trust operations of the Institution. American and Folklife Studies operate with both federal appropriations and trust funds and also seek grants and contracts for special projects. Federal funds support the Folklife administrative staff as well as office expenses; travel expenses; research and publication efforts; two-thirds of the cost associated with the annual folklife festival; and special projects, such as the recent Museum of American History exhibit Southeastern Potteries. Trust funds support the salaries of the remaining permanent staff members, one-third the cost of the annual festival, and some travel and office expenses. Grants and contracts are sought to augment programs at the annual festival (e.g. the Louisiana program at the 1985 festival). Trust funds cover the direct costs of the Visiting Research Fellowships, the Regent's Fellowships, the Cooperative Education Program, and the James E. Webb Fellowship program. Administrative costs for the Office of Fellowships and Grants, the office which manages these programs, are essentially federally funded.

The Office of Folklife Programs engages in the documentation, analysis, presentation and conservation of living folklife traditions. In addition to the scholarly study of folklife, the Office endeavors through its public programs to give national recognition to, and to educate wider audiences about, a variety of traditional cultural forms. The Office of Elementary and Secondary Education conducts its basic activities through federal appropriations, and solicits trust funds or grants for support of special projects, meetings or conferences. In addition to federal appropriations, the Office of Symposia and Seminars receives an annual allotment from trust funds for administration and direction of its activities, which include seeking outside support for the academic and intellectual meetings and publications which it coordinates. The three offices are administered by the Assistant Secretary for Public Service.

The International Environmental Research Program was established in the early 1970s to promote interbureau research on environmental matters by funding special, long-term projects using the principal scientific strengths of such organizations as the Tropical Research Institute, Smithsonian Environmental Research Center, Natural History Museum, and the Zoo. These funds are federally appropriated and administered by the Assistant Secretary for Science.

Collections Management/Inventory Programs. In FY 1979, Congress appropriated special funds in the amount of \$500,000 to help allow the Institution to begin conducting a major inventory of its various collections, including those being housed in the Museum Support Center. The initial inventory was completed in June 1983 with some one hundred million items documented as being in the collections, but there is a real need to continue the program in future years. Beginning in FY 1984 efforts concentrated on reconciling the inventory results with catalogue and other records, establishing routine procedures for entering data on incoming objects, refining the results of collections that were inventoried by batch rather than individual counts, and continuing to refine and improve on the data processing systems for accessing information on the collections. The program will continue to be administered by the Assistant Secretary for Museum Programs, working in close consultation with the Assistant Secretaries for Science and History and Art, to assure that from year-to-year the most urgent projects are selected for funding through this appropriation.

Collections Acquisition, Scholarly Studies, Education, and Special Exhibition Programs. In FY 1978, the Regents established a special trust account to be used for strengthening the Smithsonian's collections through purchase of major works of art and objects of scientific and historical value, and to allow for the funding of special projects important to the research and educational functions of the Institution. Since inception, a total of \$23,000,000 in unrestricted trust funds has been used by the programs. In FY 1985, \$2,700,000 was approved by the Regents: \$1,050,000 for scholarly projects, \$550,000 for educational activities, and \$1,100,000 for collections acquisitions. These funds, along with some earmarked in each year for similar purposes, make possible important activities in various museums and other bureaus of the Institution, including major acquisitions for the Hirshhorn Museum and Sculpture Garden, the Portrait Gallery, the Museum of American Art, the Freer Gallery of Art, the Arthur M. Sackler Gallery, the Cooper-Hewitt Museum,



At the National Museum of American Art, schoolchildren view "The Truant," a work by Randolph Rogers. This photo was one of a series used for an educational calendar produced by the Office of Elementary and Secondary Education. Photo by Roger P. Watts.

and the Museums of Natural History, American History, and African Art. The funds have also supported major scholarly studies and educational efforts, scientific workshops and conferences, student intern programs, Native American training programs, presentations, programs and performances for special groups including the handicapped and the elderly, and weekend films and lectures for the general public. It is anticipated, given available funds, that these Regents' programs will continue during the planning period.

In FY 1985, the Board of Regents approved an annual trust-funded allocation for important temporary major exhibitions as proposed by organizations of the Institution. The Special Exhibition Fund is budgeted for \$3,000,000 in FY 1986 and is expected to increase to \$4,500,000 during the planning period given the availability of funds. The cost of exhibition programs has generally been met with Federal funds which will continue to provide the predominant financing for the Institution's overall exhibition effort, as supplemented by donations from individuals, foundations, and corporations. Subject to a competitive review and selection process, the temporary special exhibitions must be of sufficient importance to provide a benefit to the viewing public and accompanied by a scholarly catalogue or similar work. Exhibitions currently in the planning stage are: "The Magnificent Voyagers" by the National Museum of Natural History which will introduce to the American public the U.S. Exploring Expedition of 1838-1842 and establish its place in the development of natural and naval science in America; "Field to Factory: Afro-American Migration 1915-1940" by the National Museum of American History which will portray the movement of hundred of thousands of Afro-Americans from southern states to northern urban centers during and after World War I; and "Birth - A Ritual for Life" (working title) the opening exhibition for the International Center Gallery in the Quadrangle that will focus on the universal experience of birth, the symbolic content of which has been incorporated into the mythology of every culture and its symbols manifested artistically throughout the world. In addition, seed money was given to the Portrait Gallery for preliminary research for its Bicentennial exhibition of portraits in America from 1700 to 1776.

Museum Support Center Equipment and Operations. During FY 1984, many of the planned laboratories at the Museum Support Center were established and made operational and work on completing the rest of these facilities is proceeding. Administrative and building management functions, including the automated data processing center, have been established to serve occupants and users of the Center. Installation of the initial segment of the three-tiered storage system for the "wet" collections (those stored in alcohol) has been completed and transfer of collections has begun. This transfer is scheduled for completion in September 1985. The remainder of the storage area, about five-eighths of the total available, will be occupied by collections stored in factory produced cabinets placed on the main pod floor and two concrete decks in the pod creating a three-level storage arrangement. The use of concrete decks and storage cabinets represents a significant change from an earlier storage concept involving self-supporting metal racks assembled to create three eight-foot high storage levels similar to multi-storage library stacks. This modification became necessary when it was established that the metal rack system could not provide the degree of tightness required to protect the collections against dust and particularly against destructive insects and other pest



Indian performers delighted visitors to the National Museum of Natural History this summer with performances and demonstrations throughout the ADITI exhibition. Photo by Tracey Eller.

infestations. Detailed schedules covering all aspects of move-related tasks were prepared for all Smithsonian units involved in the relocation for the initial move of collections. Using these schedules, work has begun on cleaning and packing the collection. As this process continues, collections are placed in staging areas from which they will be moved as the various parts of the storage system become ready to receive them. Move activities, which are governed by strict procedures and standards established to safeguard the collections, are expected to continue through FY 1991.

Future Year Prospectus

The Office of Folklife Programs will continue to plan and produce the annual Festival of American Folklife which takes place during the two-week period at the end of June and over the July 4th holiday weekend. Future exhibition plans include cooperation with the Directorate of International Activities in producing exhibits and complementary public programs within the International Center. The Office also plans to expand the educational use of its archives, which includes recordings of Festival performances, fieldwork interviews, and documentation of other Office projects and to expand its interaction with national and international scholars through periodic colloquia, seminars, and publications.

Only small increases in federal resources are projected over the planning period for administering the activities of the Office of Fellowships and Grants. If trust funds are available, however, significant added support for fellowships and stipends may occur. The Institution has given high priority to this program. Additional funding in FY 1985-87 from the Rockefeller Foundation enabled the Office to offer special fellowships related to Quadrangle programs. Continued increases in trust funding will permit expansion of the program to include more senior post-doctoral fellows as well as increasing the overall number of awards offered. Increases are also planned for the prestigious Regents Fellowships. These awards are offered to scholars of distinction and breadth of intellect to conduct in-residence studies of major importance.

As part of the effort to enhance minority participation in the life of the Institution, plans also call for providing expanding opportunities for minority students through internships and the Cooperative Education Program, and to increasing visiting faculty appointments available to faculty members from minority academic institutions.

No major growth of federal projects or resources is planned for the Office of Elementary and Secondary Education, but some expansion of trust supported programs is planned if funds become available. An anthropology resource kit for use in elementary and secondary schools has been developed, and, if it proves popular, may be adapted later for various other subjects in art, history, and science. Some additional workshops, the completion of a special project directed toward producing learning materials for hospitalized children, expanded programs for handicapped visitors, and a program designed to introduce minority young people to career opportunities at the Smithsonian also are underway. Teachers guides and classroom aids oriented around some third season television productions of Smithsonian World are being designed by the Office of Elementary and Secondary Education. The Office of Elementary and



Sweet Honey in the Rock, led by Smithsonian cultural historian Bernice Johnson Reagon, performs at St. Brides Church, Edinburgh. The Smithsonian organized performances by several groups in the Edinburgh Festival's first community outreach program. These were held in conjunction with the exhibition, Treasures from the Smithsonian Institution, at the Royal Scottish Museum, and a symposium involving six Smithsonian museum directors. Photo by Sean Hudson.

Secondary Education will also assist over the planning period with the coordination and development of the Institution's joint project with the National Academy of Sciences to create a National Science Resources Center.

The Office of Smithsonian Symposia and Seminars is involved in planning the Institution's observances of the 200th anniversary of the signing of the Constitution. A seminar is planned, "Learning the Duties of Citizenship," which will examine childhood experience as preparation for adult civic responsibilities; this will be one of several activities leading to a major international symposium on "The Pursuit of Justice" in 1987. The Office will also contribute to a special colloquium being planned for the opening of the new Center for African, Near Eastern, and Asian culture.

Equipment and move costs for the Museum Support Center are expected to decline in FY 1991 by about \$5,000,000 from present levels, and continue at about \$1,000,000 annually for equipment replacement needs. Operational costs, exclusive of utilities, are estimated at about \$1,000,000 per year over the planning period. Some federal appropriation increases are projected for the Collections Management/Inventory Program and International Environmental Science Program. Some growth in trust support for the Collection Acquisition, Scholarly Studies, and Education Program and the Special Exhibition Program is projected, but as is the case for other trust funded programs, this support is contingent in future years on economic conditions, institutional priorities, and the abilities of the various auxiliary and revenue producing activities to sustain their popularity and financial performances.

ASSOCIATES PROGRAMS

Founded in 1965 on the 200th birthday of James Smithson, the original Associate Program was designed especially for residents of the Washington metropolitan area, drawing on the varied resources of the Institution to provide educational and cultural opportunities to individuals or families who chose to join. The larger institutional aims in public education, however, have always been to make Smithsonian resources increasingly accessible to people of all ages and without regard to their geographic distance from the National Mall. With the establishment of the Smithsonian magazine in April 1970 as a major benefit and feature of a membership program, the original Smithsonian Associate Program has evolved now to include separate National and Resident organizations which offer educational and learning experiences geared to public constituencies in the Washington area, as well as across the country.

This chapter covers future plans, changes in activities, and resource estimates for Associates programs, including the National and Resident Associate Programs, the Office of Membership and Development which coordinates these Programs, and the Magazine which is part of the Office of Public Service.

Current and Projected Resources

These trust-funded operations will have FY 1985 Associate activity revenues totaling approximately \$82,500,000 and 183 employees. Minor amounts were also available from special purpose funds and restricted gifts and grants. As a group, they will generate \$12,900,000 in unrestricted trust income for the Institution in FY 1985 after cost of sales, payroll, and other operating expenses. Gross expenses for unrestricted trust Associate operations will amount to over \$69,600,000.

National and international study tours, lectures and seminars in Washington and across the U.S., and contributing membership activities comprise the ways through which the National Associate Program serves members without regard to their geographic location. The Resident Associate Program offers a variety of popular classes, lectures, tours, and other activities for members in the metropolitan Washington area. It has generally been self-supporting since 1972, generating modest net funds each year which are budgeted with unrestricted funds of the Institution. The fund raising and administrative costs of the Office of Membership and Development are considered as an expense item against unrestricted funds. Contributions to the Smithsonian from corporations, foundations and individuals are expected total over \$5,200,000 in FY 1985. This figure does not include the Contributing Membership Program, contributions from the members of the James Smithson Society, or contributions toward the Quadrangle project or other construction and renovation programs.

The Magazine has been one of the most successful public education ventures established by the Institution. Its general acceptance is a tribute to the role it has played in filling a need for style and elegance, as well as lucid reporting on cultural and scientific developments

taking place in today's world. The largest portion of the resources for this group of activities is contained within the operations of the Magazine.

Unrestricted income and expenses for FY 1985 and projected FY 1991 are summarized below:

	<u>FY 1985</u>		<u>Projected FY 1991</u>	
	<u>Full-Time Employment</u>	<u>Funds (\$000s)</u>	<u>FTE</u>	<u>Funds (\$000s)</u>
INCOME:				
Office of Membership and Development		-		-
Resident Associate Program		\$ 3,390		\$ 4,490
National Associate Program		13,150		19,420
Magazine		<u>66,000</u>		<u>93,500</u>
Total		\$82,540		\$117,410
EXPENSES:				
Office of Membership and Development	15	\$ 900	20	\$ 1,036
Resident Associate Program	47	3,470	58	4,610
National Associate Program	30	11,995	41	16,665
Magazine	<u>91</u>	<u>53,275</u>	<u>96</u>	<u>77,925</u>
Total	183	\$69,640	215	\$100,236
NET GAIN:		\$12,900		\$ 17,174

Future Year Prospectus

National Associate Program. The objectives of the National Associate Program are to provide educational experiences of superior quality in subjects relating to the Smithsonian and to encourage support for the Institution's work. The enthusiastic participation of its national constituency has enabled the Program to meet and advance its outreach goals and has made the Program's fundraising activities a significant source of revenue for the Institution's unrestricted funds.

Each year, representatives of the Smithsonian travel to 20 different cities and present a total of over 200 lectures, seminars, workshops, and performances in cosponsorship with local scientific and cultural organizations. In 1985 the program was extended to Americans residing outside the continental United States, beginning with a series in Tokyo. These activities are expected to continue to provide exciting learning opportunities for Associates and positive publicity for the Institution.

Associates participated in over 100 foreign and domestic study tours in 1985, and the market is expected to expand in the next five years. A

more concerted effort will be made to increase the conversion of these travelers to Contributing Members.

The number of Contributing Members is expected to reach 66,000 by 1991 and the net funds raised by the National Associate Programs for the Institution's unrestricted funds in that year is projected to be \$3,400.000.

Resident Associate Program. In its Twentieth Anniversary Year (FY 1986), the Resident Associate Program (RAP) looks toward a future of enhancing and developing its creative leadership role in museum membership, continuing education, and performing arts, and the strengthening of its public service function. To complement and enhance the exhibitions, research, and collections of the Smithsonian, RAP will organize museum-quality courses, seminars, lectures, films, study tours, and workshops for adults and young people -- both members and the general public. The performing arts segment of RAP will continue to bring to the Smithsonian renowned national and international performing artists to present a range of high level concerts of classical and contemporary music, poetry, dance, and theater events. Discovery Theater, Washington's premiere live theater for young people, will build on its record-setting FY 1985 season (with an attendance of over 62,000 children and their families) and offer stimulating seasons of live dramatic, musical and puppet performances. RAP's extensive programs which totaled almost 2,000 in FY 1985, and attracted more than 272,000 persons, are expected to increase in attendance by approximately ten percent over the next five years. The Program will continue to commission, from time to time, original works of art to commemorate special RAP and Smithsonian occasions.

RAP is planning special programs in conjunction with the national observation of the Bicentennial of the Constitution in 1987, as well as other major Smithsonian or national occasions.

RAP membership totals 56,000 households, translating into approximately 130,000 individuals. The membership retention rate approximated a very strong 79 percent in FY 1985, and should remain at this level or increase slightly in the future. To generate additional members, the Program will increase promotions and publicity. As an example of efforts to reach a new constituency, in 1985 RAP initiated new tours and a lecture series designed to appeal to the area's young professionals and singles.

In the past two years, RAP has undertaken telecommunications projects, audio bridging and videotaping lectures and courses to reach national audiences. The Program is building on these experiences and is examining further telecommunications opportunities in the country and abroad.

RAP's commitment to community outreach will continue. Activities include the Scholarship Program for inner city young people and adults to attend RAP courses tuition-free; Discover Graphics offering of free etching and lithography workshops for area secondary school art students and their teachers; the low-priced daytime lecture series for older citizens ("Tuesday Mornings at the Smithsonian") and the Kite Festival which attracts thousands of area and nonresident persons.

Over the next five years two outreach activities RAP manages must be relocated. Discover Graphics must vacate Landsburgh's Cultural Center by the end of this calendar year. In FY 1987 Discovery Theater will not have use of its theater because of refurbishment of that section of the Arts and Industries Building. Permanent homes are being sought for both programs.

Automation of RAP's offices, which began in May 1985, is proceeding rapidly. Complete automation of the publication of the monthly Associate newsletter and of general office functions are expected within the next five years. RAP will initiate the use of credit cards for ticketed and other activities in the next fiscal year and will examine the results very carefully.

RAP will be spending a good portion of the next five years moving, settling in, and becoming acclimated to its new offices and classrooms in the Quadrangle.

Office of Membership and Development. Support of programs in the arts and culture from corporations and foundations has diminished somewhat in recent time. Largely a result of the administration's policy calling for the private sector to assume responsibility in maintaining various human and social services, the trend can be expected to be further adversely affected by new corporate tax regulations. At the same time, the competition for art and cultural funding is increasing. The case for contributions to the Smithsonian, therefore, now requires more intensive and more comprehensive efforts, a situation which will doubtless persist well into the future.

As a result, the Development Office has been planning several constructive measures. These include an expansion of the staff so as to permit more personal approaches in solicitation of sponsorships from corporations, foundations and individuals. A larger staff will also make possible increased attention to deferred giving to the Institution through such charitable remainder trusts as the Pooled Income Fund, Unitrusts and Annuity Trusts as well as wills and bequests. A new development brochure will be produced to help present the Smithsonian's needs for a wide variety of private support, making clear the historic relationship with federal appropriations.

Finally, the capital campaign for expansion and renovation of the Cooper-Hewitt Museum is now in full swing. Soon to be initiated is another major campaign to establish acquisition funds for the National Museum of African Art.

Smithsonian Magazine. Although the Magazine's management is justifiably cautious about the ebb and flow of fashion in publishing, it also expects that the demand for its product will remain strong, with an annual financial surplus estimated at \$10,000,000 to \$16,000,000 over the next few years. It is primarily from these funds that the Board of Regents has been able to budget for the recently approved Regent's program for acquisitions, scholarly studies, educational outreach projects, and major exhibitions to fund certain expenses previously met with federal appropriations, and to set aside sums each year for the enhancement of the

Institution's endowment. The Magazine will continue to produce a high quality product and to be supported entirely by the trust revenues which it generates. New growth in subscribers is expected to average 25,000 a year from the present level of about 2,000,000. If required because of inflationary cost increases associated with production and mailing, subscription rates may increase in future years. There is the prospect that present subsidies for not-for-profit mailers may be reduced substantially or withdrawn altogether. If either occurs, surpluses would be significantly less than projected.

With continued good performance by Associate Programs, revenues should increase from the current level of \$82,000,000 to \$117,000,000 in FY 1991, with net income from these activities projected at over \$17,000,000. Detailed expense projections appear in Appendix I.

BUSINESS MANAGEMENT ACTIVITIES

This section covers plans, anticipated changes, and resource estimates for selected auxiliary activities conducted under the auspices of the Business Management Office. These revenue producing activities include the Museum Shops, Mail Order Division, Concessions, Parking and Product Development and Licensing operations. The revenue-producing activities of the Magazine, Smithsonian Press and Traveling Exhibition Service are separate from the Business Management Office, and are presented in appropriate chapters and tables corresponding to the organization of the Institution and the FY 1987 budget submission.

The operations described in this section, like the Institution's Associates Programs, are an effort to offer the public a diverse range of services, to make the Smithsonian more accessible, and to enhance the educational experiences generated by exhibits and other activities.

Current and Projected Resources

In FY 1985, these trust-funded operations are projected to have revenues totaling some \$35,900,000 and 276 employees. As a group they will generate \$5,700,000 in unrestricted net income for the Institution after cost of sales, payroll, and other operating expenses. By FY 1991, gross income from these activities is expected to increase by over \$22,100,000 with a net gain of approximately \$9,400,000 being made available for application to various activities and programs of the Institution.

	<u>Full-Time Employment</u>		<u>Unrestricted Funds</u> <u>(\$000s)</u>	
	<u>FY 1985</u>	<u>FY 1991</u>	<u>FY 1985</u>	<u>FY 1991</u>
INCOME:				
Business Management Ofc.			\$ 155	\$ 635
Museum Shops			16,855	23,500
Mail Order Division			16,360	30,150
Concessions			1,250	2,020
Parking			<u>1,235</u>	<u>1,690</u>
Total			\$35,855	\$57,995
EXPENSES:				
Business Management Ofc.	8	8	\$ 370	\$ 860
Museum Shops	195	245	15,260	21,200
Mail Order Division	55	124	13,045	25,460
Concessions	1	1	965	360
Parking	<u>17</u>	<u>17</u>	<u>540</u>	<u>730</u>
Total	276	395	\$30,180	\$48,610
NET GAIN			\$ 5,675	\$ 9,385

Business Management Office. In addition to the administration of the business activities listed below, this office is responsible for the product development and licensing program which makes reproductions and other products closely related to the Smithsonian collections available for purchase by individuals throughout the country, through licensing agreements with various manufacturers.

Museum Shops. The Smithsonian has provided sales desks since the 1860s, but substantial sales results are a recent development. Centrally managed museum shops are located in the Museum of American History, the Museum of Natural History, the Arts and Industries Building, the Air and Space Museum, the Hirshhorn Museum and Sculpture Garden, the Museum of American Art, the Portrait Gallery, the Renwick Gallery, and the Museum of African Art.

Items offered for sale in the museum shops are selected to meet special requirements. Each item must expand the educational value of an individual's visit, relate to the collections, be appropriate to the museum where sold, and conform to high standards of quality and taste. Catalogues and other publications derived from exhibition themes and subjects, including works by Smithsonian scholars, are important to the museum shops. Other items include reproductions of artifacts, craft products, and educational games and toys for children.

Mail Order Division. Formed in 1975, the Mail Order Division produces several catalogues each year. These catalogues are sent to Associates and offer special items selected to reflect Smithsonian collections and programs. High standards of quality, taste, and educational value are maintained. As many as 300,000 catalogue orders can be processed annually through the Division's receiving and shipping center in Springfield, Virginia.

Concessions. Through concession arrangements, the Institution provides visitors with restaurant facilities and recorded tour rental systems in the major Smithsonian museums. An old-fashioned ice cream parlor is also operated by a concessionaire in the Museum of American History. Other concessions include the popular carousel and popcorn wagons on the Mall during the spring and summer.

Parking. Parking revenues are generated by the parking garage located under the Air and Space Museum. Supplemental fees are charged to Associates and the public parking on other Smithsonian lots during weekends.

Future Year Prospects

In the period from FY 1986 to FY 1991, the primary focus in the Business Management activities will be on improving the quality of goods and services offered to the public as well as the operational efficiency of the business activities. Expanded program activity will be associated primarily with the opening of new museum shop facilities in the Quadrangle replacing the existing shop of the National Museum of African Art, as well as the renovation and expansion of existing facilities in the National Museum of Natural History, the opening of new restaurant facilities in the

National Air and Space Museum to improve access for the public, and increased efforts in the area of product development and licensing. As in the past, high standards for the quality and value of goods and services will be maintained. Detailed projections appear in Appendix I.

ADMINISTRATIVE, FINANCIAL AND OTHER SUPPORT SERVICES

Organization units described in this chapter include central management functions provided by the Office of the Secretary, Under Secretary, Assistant Secretary for Administration, General Counsel, Treasurer, Congressional Liaison, and Director of Facilities Services. They also include the following specialized administrative and technical offices: Accounting and Financial Services, Audits and Investigations, Contracts, Equal Opportunity, Grants and Risk Management, Information Resource Management, Management Analysis, Personnel Administration, Printing and Photographic Services, Programming and Budget, Public Affairs, Special Events, Supply Services, and Travel Services.

The facilities services offices are included under this chapter: Design and Construction, Plant Services, and Protection, with primary orientation to the physical plant and its contents and to safety and health services for visitors and staff; and the Keeper of the Castle, which provides research and collections management for the Castle Building and the collection of antique furnishings. To be consistent with budget presentations, resources associated with the Office of Horticulture, South Group Building Management, and Quadrangle Building Management are included in the tables of this chapter as part of physical plant services.

These central administrative, financial, technical and other support services provide overall planning, policy determination, direction, and leadership to the Institution; management of its resources; and evaluation of its work. These units furnish legal counsel, financial management, and other administrative, professional, and technical services required to support the Smithsonian's programs, to maintain, operate, and protect its physical plant; to perform health and safety services; and to assure that the Institution complies with all appropriate laws and regulations and is fully accountable for its actions.

Current and Projected Resources

These organization units had FY 1985 resources totaling about \$71,000,000 (including about \$15,500,000 for utility, communications, and rental costs) and 1,586 full-time employees. Of this total, approximately \$60,000,000 and 1,397 full-time employees are provided from appropriated funds and \$11,000,000 and 187 employees are allocated within the Institution's nonappropriated trust fund budget. A breakdown of resources (before application of overhead recovery) follows for FY 1985 and projected to FY 1991.

<u>Subgroups</u>	<u>FY 1985</u>		<u>FY 1991</u>	
	<u>Funds</u>		<u>Funds</u>	
	<u>FTE</u>	<u>(\$000s)</u>	<u>FTE</u>	<u>(\$000s)</u>
Central Management Offices				
Federal S&E	36	\$ 1,762	37	\$ 2,056
Trust Funds	18	1,774	18	3,283
Specialized Administrative and Technical Offices				
Federal S&E	208	\$ 9,505	250	12,842
Trust Funds	153	7,256	178	8,443
Facilities Offices				
Federal S&E	1,153	48,765	1,396	66,237
Trust Funds	18	1,888	19	2,221
Total	1,586	\$70,950	1,898	\$95,082

Unrestricted trust funds are allotted to the management and support units to achieve an appropriate balance of federal appropriation and trust fund support in these units, since they serve the entire Institution. Primarily, these funds are used for personnel who perform assignments similar to those of staff paid from appropriated funds. Several support units administer unrestricted trust funds for more specialized purposes. The Office of Printing and Photographic Services receives income from the sale of photographic materials to the public. The computer centers of the Office of Information Resource Management and the audiovisual unit of the Office of Plant Services operate on a cost recovery basis by charging users for the services provided.

Future Year Prospectus

Major emphases of the administrative, financial, and other support offices over the planning period include the development and maintenance of the physical plant, improvements to financial and other management systems, continued strengthening of internal controls and accountability systems, and provision of adequate security, safety, and health systems.

The major facility event will be the completion in 1986 of the Quadrangle project now under construction with public opening of its museums and other education resources in 1987. Administrative, financial, and support costs identified to date associated with Quadrangle operations are contained in bases of the participating organizations, and are aggregated in Table 5. New or renovated facilities to support basic science research and public education are projected for several of the Institution's activities and the Institution will be diligent in maintaining and upgrading its physical plant to guard against deterioration, to improve energy efficiency, to provide for health and safety requirements, and assure that spaces meet program needs. Details on the Smithsonian's capital program appear in the Facilities Planning, Construction, Restoration and Renovation chapter and the Beyond FY 1991 chapter of the Prospectus.

The provision of timely and high quality services to Smithsonian bureaus and offices and to the public where appropriate will continue to be of primary importance over the planning period. To this end, automatic data processing will be applied more comprehensively in a coordinated fashion to improve efficiencies, reduce the flow of papers, cope with higher workloads and provide more effective communications. Continued attention will be given to the assessment and correction of potentially vulnerable areas of operations. Such activity will be overseen by the Board of Regents and its Audit and Review Committee.

Serious deficiencies in the present levels of funding and staff for the maintenance of the physical plant and for support to building-related programs, such as exhibits installations, must be corrected. Funds anticipated in the FY 1986 appropriation for the Office of Plant Service will begin to correct the problem and efforts will continue through the planning period to achieve all funding for this activity. Security, safety, and health programs will receive continuing attention in both the operating and construction budgets. Guard and other security personnel will be added based on continuing surveys to meet the needs of new facilities and to provide a more acceptable level of coverage in present public and other spaces for the protection of facilities, natural areas, collections, visitors, and staff. Over the planning period, it is anticipated that the Institution's proprietary alarm system, having been installed and tested in the Museum Support Center, will be extended to other buildings on the Mall and elsewhere. Simultaneously, the program of upgrading alarm and other security equipment and devices will continue. The conversion and elimination of nitrate film materials from Smithsonian collections for safety reasons will be completed and substantial progress will have been made in the elimination or containment of asbestos conditions. An occupational health Program for the Institution's employees will be in place.

Operating budget resources required to meet these priority objectives and to sustain adequate levels of operational support by the organizations in the administrative, financial, and other support category may approach \$95,000,000 in FY 1991 from the FY 1985 level of \$71,000,000. Detailed projections for centralized, specialized and technical, and facilities offices appear in Appendix I.

FACILITIES PLANNING, CONSTRUCTION, RESTORATION AND RENOVATION

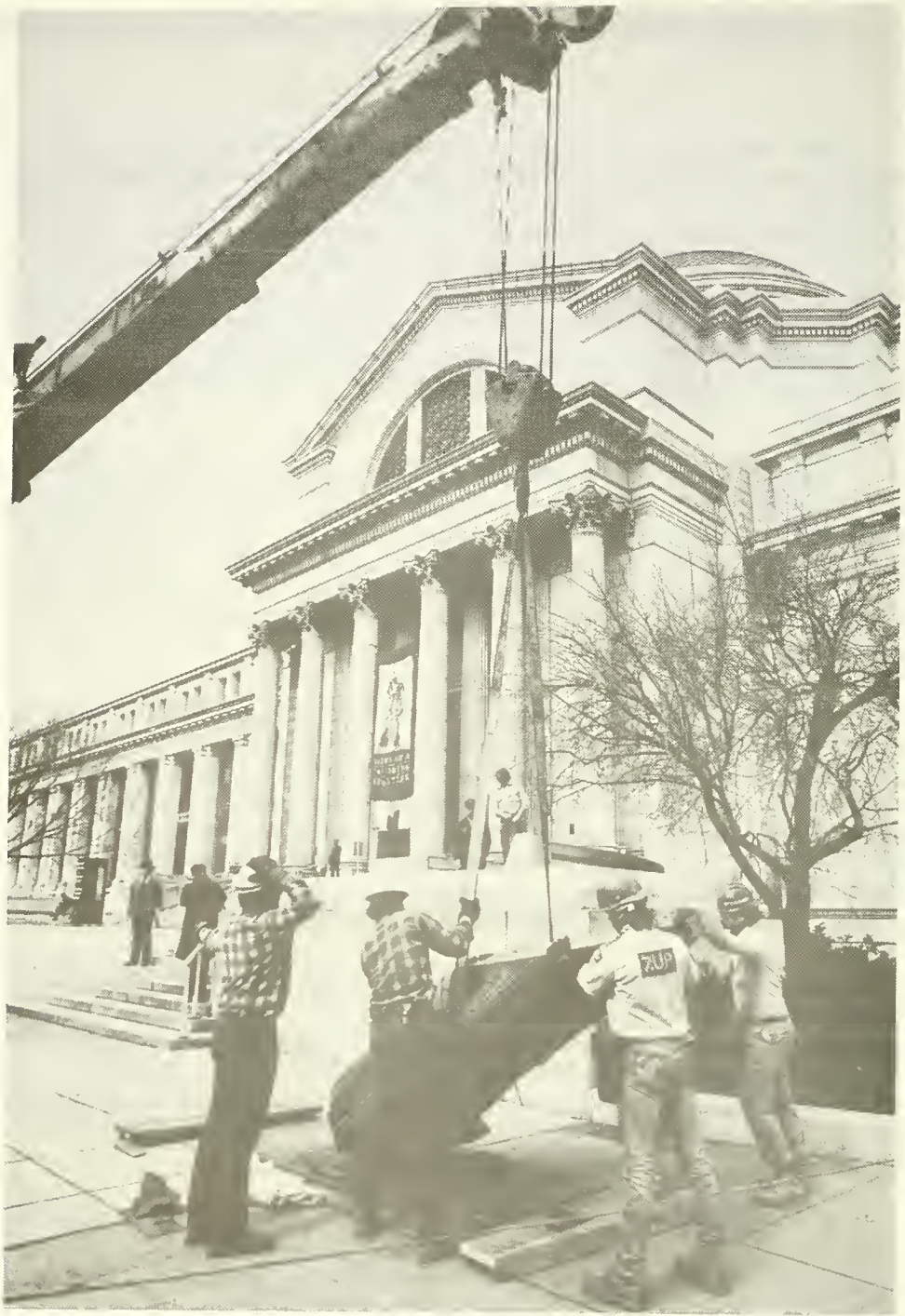
The Smithsonian's responsibility for its museum buildings and other facilities requires a continuing program of repairs and maintenance (some of which is accomplished by staff with funds provided in operating budgets), renovations and restorations, and new construction. The objectives of this program are to provide appropriate, safe, and accessible facilities for research, education, and care of collections. Federal appropriations are the primary source of funds for this work, but, starting with the funding of the original Smithsonian Institution Building, other sources of funds have at various times become available for particular projects.

Beginning in the mid-1970s, the Smithsonian established improvement of its facilities and their operation as one of its highest priorities. This decision to emphasize building repairs and improvements through the budget process reflected the Institution's great concern for the condition of its buildings, many of which date back to the turn of the century, as well as the realization that many more millions of dollars were required each year for this purpose.

Considerable progress has been made in determining the extent to which additional facility support is required. A number of critical projects have been completed and a number of other major projects have been started. These projects include periodic work such as roof replacement, terrace resurfacing and waterproofing, replacing heating and air conditioning equipment, fire detection and suppression improvements, etc. These and other repair and improvement requirements are estimated currently to cost about \$135,495,000 from FY 1987 through FY 1991.

Redevelopment of the Zoological Park began in 1970 and steadily accelerated to a point where now only several improvement and exhibition projects remain. About \$43,351,000 of work will be accomplished through FY 1986 and about \$42,000,000 of work is planned through FY 1987-91. At the Conservation and Research Center at Front Royal, facilities planned for renovation and development can be accomplished in the next five years at an estimated cost of about \$13,041,000.

The Smithsonian's five-year construction program highlights the completion of the Quadrangle for the Center for African, Near Eastern and Asian Cultures. In addition, programs are outlined for the General Post Office Building, the Tropical Research Institute, the Whipple Observatory, Cooper-Hewitt, the Air and Space Museum, and Mall administrative support facilities.



Workmen hoisting petrified log into place on pedestal at Mall entrance of the National Museum of Natural History. This "natural sculpture" was unveiled at the Museum's 75th Anniversary party. Photo by Chip Clark.

Construction, Renovation and Restoration Summary
FY 1987-1991

(\$000) (Appropriated and Nonappropriated)

Construction	\$133,300
Zoo (Rock Creek & Front Royal)	55,041
Restoration & Renovation	<u>135,495</u>
	\$323,836

Construction

Quadrangle Development

Public Law 96-36 signed by the President on July 20, 1979 authorized planning for development of the Quadrangle. In FY 1982, \$960,000 was appropriated to complete planning and design for a Center for African, Near Eastern, and Asian Cultures within 4.2 acres of land bounded by the Smithsonian Building, the Arts and Industries Building, the Freer Gallery of Art, and Independence Avenue. This project, including a connecting link and modifications to the Freer Gallery, is estimated to cost \$75,000,000, and is being financed equally between government and private sponsors. An amount of \$36,500,000 was appropriated in FY 1983 to allow the Institution to construct a building in the Quadrangle. Because a very favorable construction contract was awarded by the General Services Administration, the Congress in FY 1984 reduced the construction appropriation by \$8,000,000. Legislative language accompanying this reduction allowed the Institution to make subsequent properly justified requests necessary to bring this project to fulfillment. Completion of the Quadrangle Building is expected in 1986, and opening is scheduled for 1987. In the FY 1986 budget request, the Institution is seeking restoration of \$4,000,000 rescinded to provide for construction of the link to the Freer Gallery of Art, increases in design, construction management and contingency and furnishings and equipment necessary for initial occupation of the new building. The remaining \$4,000,000 is being requested in FY 1987, to complete furnishings, provide additional contingency and make final building adjustments for full use and public opening of the building.

The Quadrangle building will include exhibition galleries and supporting museum facilities for proper display of unique collections of the Museum of African Art, as well as for an expansion of collections of Near and Far Eastern art to be known as the Arthur M. Sackler Gallery. There will also be space for the Smithsonian Institution Traveling Exhibition Service, Resident and National Associate Programs, expanded public education facilities, as well as a much needed International Center. The joining of these activities and programs in one area will enable the Institution to apply, in a coordinated fashion, its major resources to benefit millions of visitors who travel to Washington each year. It will provide, as well, an opportunity for foreign nations to present their most important cultural accomplishments to this same audience.

Operating costs for those units expected to occupy and support the facilities are aggregated and contained in Table 5 of this Prospectus.

Science Facilities Development

The Institution intends to seek from Congress in FY 1985 and subsequent years planning and construction authorization for science facility development. Unlike prior year repair and improvement activities, current research objectives include a coordinated effort to improve science facilities commensurate with the Institution's longer range scientific expectations. These construction projects are as follows:

Whipple Observatory

Further development of facilities at the Whipple Observatory near Tucson, Arizona, is required to support expanded research activities associated with the installation of the Multiple Mirror Telescope. The Observatory is located on a 4,744-acre site at the 7,600-foot level of Mount Hopkins which is controlled by the U.S. Forest Service and reached by a limited-access secondary road that originates at the observatory administrative headquarters location in Amado, Arizona.

The present administrative and support facilities of the Observatory, which serve all mountain-top activities, are located in an office and maintenance complex at Amado, Arizona west of the Santa Cruz River, and 18 miles from the scientific operations on Mount Hopkins. This base camp is the operational and logistical headquarters for anyone working at or visiting the mountain. Its site consists of two adjacent leased parcels of land totalling approximately 4.25 acres; its facilities include a one-level school building and a one-level residence which have been converted for office use. There are also vehicle service, repair, and storage sheds on the site.

The owners of the site have indicated a desire to sell the property in the near future. The site was the primary focus of P.L.98-73, approved August 11, 1983, which authorized appropriations of \$150,000 for the Institution to purchase land in Santa Cruz County, Arizona for a base camp. Almost immediately after enactment of the measure it became clear that the purchase price of the property would exceed the authorization. More significant, however, were the rains that fell on October 1, 2, and 3 of 1983 and the immensely destructive flooding of the normally dry river that ensued. The bridge between the base camp and the mountain facilities was washed out, making access very difficult and adding an hour to the already arduous trip to and from the summit. In view of these circumstances, the Smithsonian is no longer a prospective buyer of the existing site.

Recently the Smithsonian completed the first phase of a master planning process to locate a more appropriate site for a base camp and to make efficient use of the space available. After a thorough review the Institution has selected as its first choice a site on loan under the control of the Forest Service, closer to the mountain than the existing one, and east of the Santa Cruz River.

The second and final phase of the master planning process will begin shortly. It will include spatial analyses of the site, plans for its development, related environmental documentation, and refined estimates of the cost. Two alternative sites under the control of the State of Arizona are in the same general area; they will be investigated as back-up sites in case the Forest Service land proves inappropriate or unavailable.

The proposed new base camp will consist of administrative offices and a Visitor Center, a motor pool and warehouse facility. Administrative office space will provide for purchasing, fiscal, engineering, secretarial, and public information activities. A small Visitor Center will provide for displays and briefings about the activities being conducted at the Observatory. The motor pool facility will support more than 60 vehicles, including buses and heavy machinery used for road maintenance. Enclosed motor maintenance shops are required because of the weather extremes, and space is needed for spare parts storage. A warehouse is also required for the secure storage of goods and equipment going to and from the Observatory. Appropriate paving will be required for pedestrian walkways, driveways, parking areas and motor pool areas. Authorization for planning and construction of the base camp is being sought in FY 1985 and an amount of \$4,500,00 is being requested in FY 1987 for the design and construction of the base camp buildings. Operating costs will be assembled and reviewed in the near future.

Tropical Research Institute

The Smithsonian Tropical Research Institute (STRI), located in the Republic of Panama, is the principal U.S. Center for tropical biology. Each year hundreds of U.S. and international researchers join the permanent STRI staff in undertaking fundamental studies on the tropics. Increasingly scientists and policymakers have recognized the need to understand how tropical ecosystems function in order to predict more accurately environmental changes in the temperate zones.

To capitalize on STRI's unparalleled data base of more than sixty years, it is necessary to undertake over the next five years the facilities improvements outlined below. A Master Plan has been initiated by a major architectural/engineering firm to assist in guiding this program; a copy of the summary of the first phase is enclosed.

Existing STRI facilities include buildings constructed in the 1920s and 1930s and renovated structures obtained from the U.S. military and the Government of Panama. With the exception of a new library building opened in 1984, these facilities are inadequate because of age, size, safety, and health standards. Construction materials used in the first half of the century are inappropriate to the region's high humidity and the insect infestation, and renovation of surplus buildings has served only as a stop-gap measure to ensure continuity of research. The structures are inadequate for modern scientific purposes and require extensive maintenance.

Among the most pressing needs for STRI is a new terrestrial laboratory to replace a small and obsolete leased structure at Ancon. Originally built as a hospital morgue, the facility does not adequately support

current research purposes. It has severe deficiencies in its electrical systems, plumbing, load-bearing capacity, and parking, and in the widespread presence of arsenic and other health-related problems. Additionally, its hillside location makes extensive renovation and the addition of outdoor cages and plant-growing facilities impossible.

The construction of a new terrestrial laboratory at the nearby administrative headquarters, known as the Tivoli site, will allow proper space utilization for permanent staff, long-term visitors, and students. Better integration of computers, other communications devices, and modern scientific equipment will be afforded in the new facility, as will space for cages and green houses and space for lectures, small meetings, and major conferences. Construction and equipment for the new laboratory is currently estimated at \$7,900,000. A gift of \$4,000,000 for construction has recently been received. An additional 3,900,000 is required for completion of the project, and this amount is included in the budget request for FY 1987.

Barro Colorado Island, located in the middle of Gatun Lake, a key component of the Panama Canal, has served as an important research center for tropical biology since 1923. Under the Canal treaties, STRI was assigned custodianship of this 12,000 acre reserve on behalf of the U.S. and the Republic of Panama. The island serves hundreds of investigators annually, providing research space, as well as living and dining accommodations. Its physical plant includes many outdated wooden buildings which do not meet modern day building or health codes. Using Restoration and Renovation monies, the Smithsonian has made some improvements to the basic electrical, water, and sewage systems. The major requirement now is a new scientific laboratory with attendant cages and growing facilities. Approximately \$2,800,000 is required for this construction; funds would be requested in FY 1989.

The geographical advantages of Panama to researchers interested in marine studies are incomparable: nowhere else in the world are two oceans so easily accessible for comparative research. Currently, renovated facilities are available on the Pacific, but no similar situation exists on the Atlantic where STRI research is conducted at Galeta Point in a small aluminum building acquired as surplus property from the U.S. Navy in 1965. The present laboratory has a severe asbestos problem in its walls and roof. Housing for researchers consists of a dilapidated trailer which does not meet safety and health codes; an inadequate sewage disposal system threatens the unique coral reef/mangrove swamp study site. A new laboratory, dormitory, and sewage system will require approximately \$3,500,000 which also would be requested in FY 1989.

STRI is responsible for more than sixty vehicles, a major research vessel, and dozens of small boats, in addition to normal building maintenance requirements. At present the maintenance needs of its geographically dispersed facilities are performed in the bottom of an old torpedo factory; the top floor houses research offices. In order to provide for adequate maintenance and to relieve the noise and congestion of the present site, a new central facility with modern equipment is required; the estimated cost of its construction is \$900,000 which, again, would be a FY 1989 request.

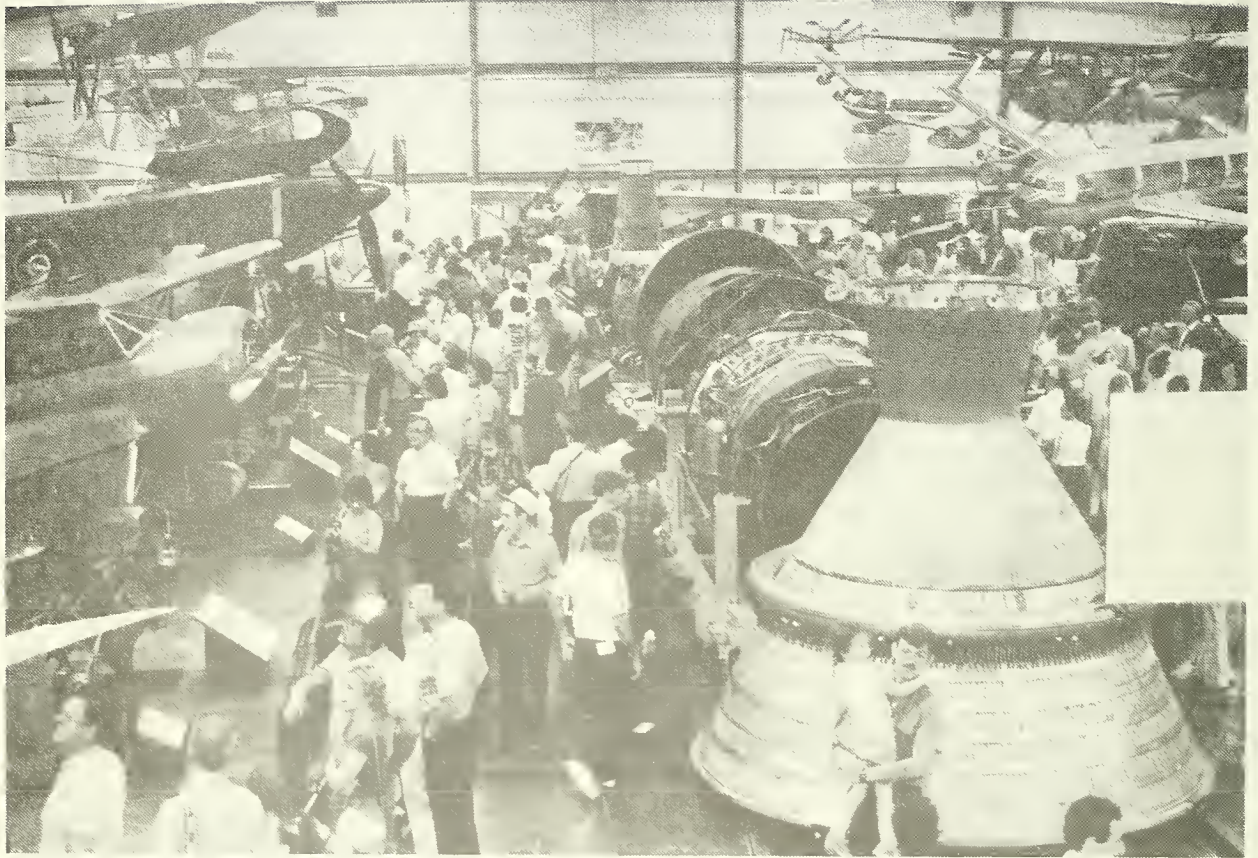
General Post Office

Since 1958, when the Institution acquired the Patent Office Building, it has been interested in obtaining the General Post Office Building, which is immediately across F Street and further bounded by 7th, 8th and E Streets. Both buildings are the work of America's first native-born professional architect, Robert Mills of South Carolina, who also designed the Washington Monument and the Treasury Building. The General Post Office (the fifth oldest Federal building in Washington, D.C.) is proposed to be used for the expanding public activities of the National Museum of American Art, the National Portrait Gallery, and the Archives of American Art now housed in the Patent Office Building. Located across the street and connected by a tunnel under F Street, this landmark structure would be expected to meet the needs of these three bureaus well into the next century.

The General Post Office offers space for a wide range of public museum activities such as exhibitions, the study of collections, classes and seminars. An auditorium for lectures, films, and other purposes, urgently needed by the programs in the Patent Office Building, can be created in the General Post Office Building. Conversion of the building to public use, including weekend and evening education activity, also would add significantly to the emerging cultural and art corridor along 8th and 7th Streets that has been encouraged by the Pennsylvania Avenue Development Corporation. A specific program is being developed for the use of the building by the Museum of American Art, National Portrait Gallery and the Archives of American Art. A total project cost of \$40,000,000 has been estimated.

Preserving this historic landmark and converting it to public purposes will require a comprehensive program that must meet the special requirements of museums for fire protection and climate control in order to preserve the collections with which they are entrusted, while also providing for the safety and accommodation of visitors. Elements of such a program will include restoring all of the original interior and exterior architectural finishes; razing the courtyard building and glass roofing the entire courtyard area; replacing the perimeter windows with thermopane glazing; modernizing all electrical and plumbing systems; providing new insulation, a vapor barrier, and a heating and air conditioning system with industrial controls; replacing existing fluorescent lighting with fixtures reminiscent of the period in which the building was constructed; and installing smoke detection and sprinkler systems along with other security equipment.

Being assured of continued growth of collections and public programs at the Patent Office Building, the Institution has made known to the General Services Administration its long term requirement for space at the General Post Office. Authorization has been given to transfer the building to the Smithsonian without reimbursement, contingent on GSA securing suitable quality space for the relocation of the current occupant, the US International Trade Commission. The Institution is requesting an amount of \$3,000,000 in FY 1987 for design, and plans to request \$37,000,000 in FY 1988 to renovate, repair and convert the building for public use.



The Garber Facility, home of the National Air and Space's reserve collection, displays more than 90 aircraft "wingtip to wingtip." During the Wings and Things Open House held each spring, the Facility opens its doors for the fun-filled weekend. Free concerts, model aircraft building demonstrations, safe telescope viewing of the sun and an opportunity to talk with craftsmen as they restore aircraft are all part of the annual event. Photo by Mark Avino.

Operating costs associated with programs and maintenance when the building is in use are currently expected to amount to around \$5,000,000 in FY 1985 dollars. This includes \$3,000,000 and 95 staff for program curatorial support and building maintenance for the three occupants along with base funds for exhibitions, education, collection and facilities management activities. It also includes an estimated \$2,000,000 and 80 positions for protection services, operating engineers and other plant support, and utilities. In addition, current estimates for one-time equipment and moving costs approximate \$1,300,000. These projections are being refined and are not contained in Appendix I tables.

Air and Space Museum

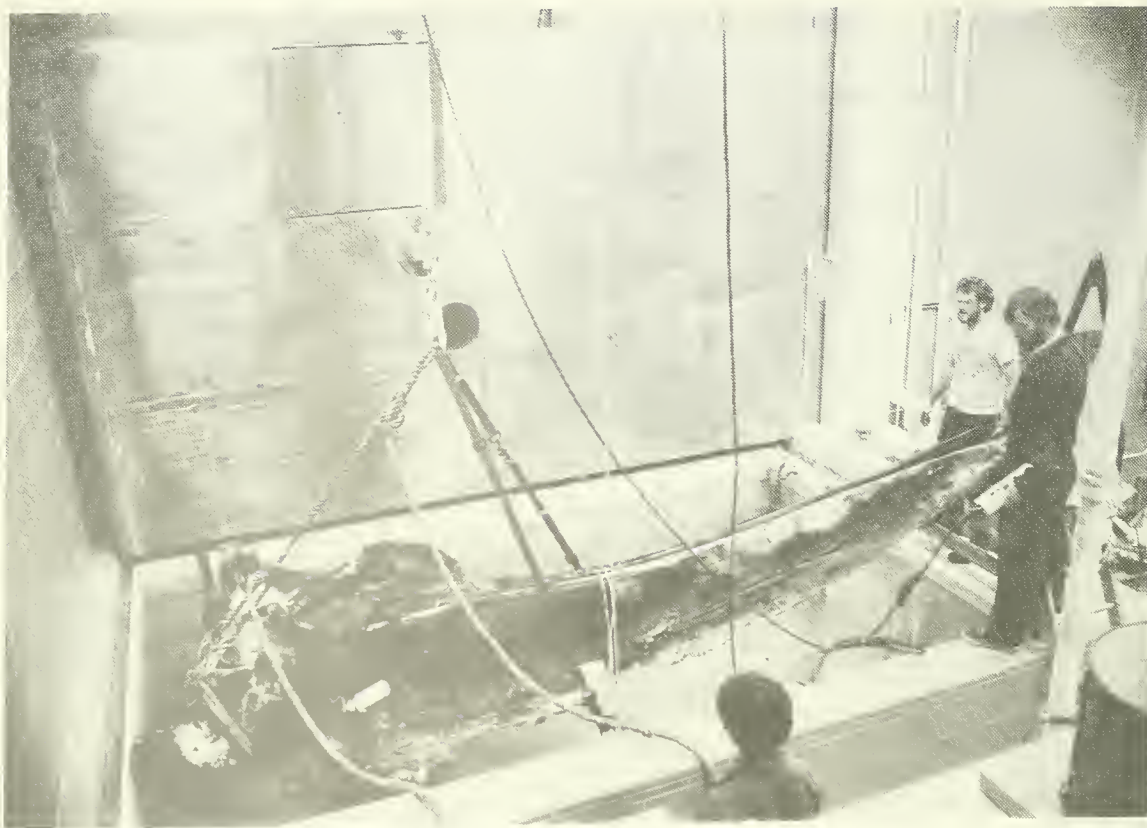
Because of the size of air and space craft, even early craft that could be partially disassembled, it was considered uneconomical to provide collection storage space in the Mall building. Therefore, the Air and Space Museum has continued using temporary metal storage buildings at a 21 acre site at Suitland, Maryland, acquired by the Institution for this purpose in the mid 1950s. Periodically, since acquiring this facility, additional metal buildings have been constructed to a point now where both buildings and site are filled to near capacity. Also, during these intervening years, the Suitland area has been developed intensely, making transportation of large modern aircraft to the Air and Space facility, now known as the Paul E. Garber Facility, unfeasible.

Staff of the Air and Space Museum for the past four years have evaluated potential locations at or near airports in the Washington region that could accommodate storage and exhibition structures and permit relocation of aircraft from the Garber Facility, as well as receive by air transportation new objects such as the NASA space shuttle and a Concorde. This search resulted in the selection by the Museum of the Federal Reservation at Dulles International Airport, Virginia. Preliminary and informal discussions with the Federal Aviation Administration indicate that sufficient underdeveloped acreage and general interest exists to warrant serious consideration of this location and further study and planning.

The Institution, following approval of conceptual development planning by its Board of Regents has had authorization for planning and construction of the proposed facility introduced in Congress, and hearings have been held and are scheduled before several Subcommittees. Further feasibility exploration and preliminary planning will be pursued once authorization has been received. The Institution foresees that four aircraft type hanger buildings of approximately 100,000 square feet each might be constructed over a ten to fifteen year period. Amounts of \$2,400,000 in FY 1988 and \$29,600,000 in FY 1990 are planned for design, site preparation, and construction of a first building as well as utilities and road improvements for the site.

Cooper-Hewitt

The Institution is planning new construction to make maximum use of the land and space available for Cooper-Hewitt operations. The tentative plan would allow a new wing to be constructed on the parking area adjacent



Recent acquisition of a 17-foot-long whale skull provided the perfect opportunity to try this new whale-rendering vat at the Museum Support Center. Photo by Charley Potter.

to the Carnegie Mansion, and renovation of the Miller townhouse. The new building and renovated Miller townhouse would add substantially to the Museum's capabilities for special changing exhibitions and educational programs, and allow the Carnegie Mansion to house the Museum's permanent collections and exhibitions. A fund raising effort is beginning with a goal of about \$11,500,000 to be raised, representing about one-half the requirement. Legislation authorizing construction was introduced in Congress in FY 1985 and appropriations will be sought in FY 1989 as fund-raising efforts are assured.

Administrative Service Center

The present concept of an in-town Smithsonian Service Center was developed in 1975, when a number of Institution support activities located at various leased buildings in Washington were consolidated in a single leased location at 1111 North Capitol Street, to provide efficient support to museums and other bureaus principally located on the Mall. In selecting the present Service Center location, proximity to the Mall was a key factor inasmuch as the movement of personnel and museum-related objects between the Service Center and the Mall occurs at a relatively high frequency.

Support activities included in the Service Center can be characterized as being of the light industrial type. A major activity is Exhibits Central where museum exhibits are developed and constructed from basic materials such as lumber, plastic, paper, etc. Exhibits Central facilities include drafting, model construction, shops for woodworking, plastics, silk screening, painting, fabrics and welding.

Other major activities include the assembly, processing, packing, crating and shipment of outgoing traveling exhibits for the SI Traveling Exhibition Services (SITES), the receipt, storage and issue point for general office and museum and building operation and maintenance supplies and equipment, a printing and duplicating plant, the distribution center for the Smithsonian Press, and limited holding areas for museum objects from several of the museums.

With the development of a Service Center concept, the Institution leased the presently used facility at 1111 North Capitol Street. The current lease for the Service Center expires in the fall of 1991. During the term of the present lease, the building was sold to a development firm. In discussions with principals of the firm, it has been made clear to Institution representatives that the objectives of the current owners include redevelopment of the property to a higher and better use. It is noted that the neighborhood is currently in a transition stage, moving from light industrial use to probably office building or comparable use. Quality office buildings have been constructed on North Capitol Street several blocks south of the 1100 block, with substantial indication that this growth will continue to the north in a relatively short period of time.

Plans call for constructing replacement building for those activities now at 1111 North Capitol Street together with those other central support activities now on the Mall which are expected to outgrow their present

SMITHSONIAN INSTITUTION CONSTRUCTION PROGRAM*

CONSTRUCTION (\$000s)	FY 1986 - FY 1991				
	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990
Quadrangle /1					
General Post Office /2	4,000	4,000			
Science Facilities Development /3		3,000	37,000		
National Air and Space Museum/Dulles			2,400		29,600
Fred L. Whipple Observatory		4,500			
Smithsonian Tropical Research Institute		3,900		7,200	
Administrative Service Center /4					30,200
Cooper-Hewitt Museum /5				11,500	
Construction Total	4,000	15,400	39,400	18,700	29,600
					30,200

*Exclusive of National Zoological Park

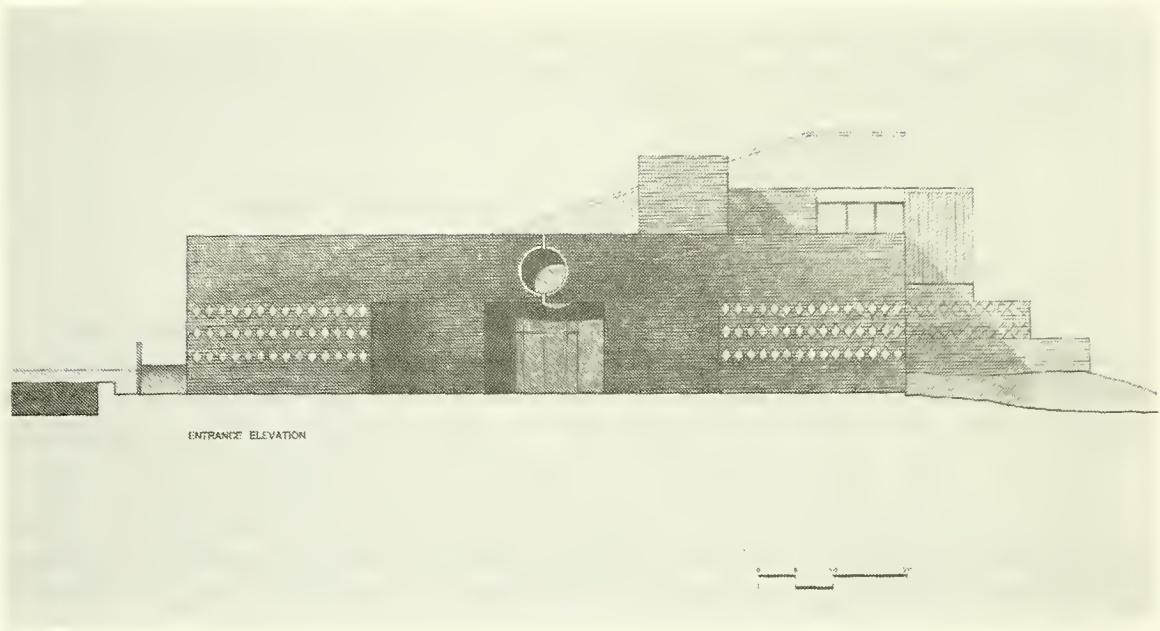
/1 Funds in addition to those appropriated in FY 1983 will be matched with Trust funds (\$8,000,000).

/2 Planning and construction authorization was obtained in FY 1985.

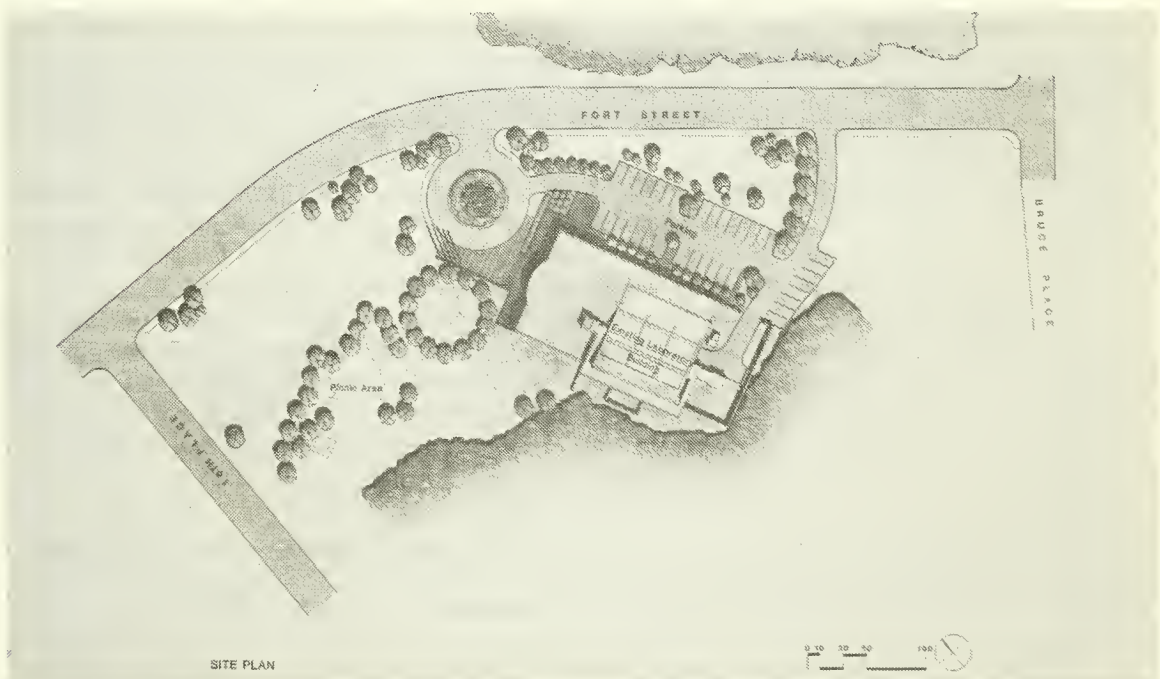
/3 Authorization is being sought for the planning and construction of expanded science facilities, which would include base camp construction for the Smithsonian Astrophysical Observatory at Amado, Arizona, a major laboratory and conference center at the Smithsonian Tropical Research Institute, Tivoli site (to be funded partially by Federal funds (\$3,900,000) and partially by a private contribution (\$4,000,000)), as well as improvements at other STRI facilities in Panama. Plans also call for the development of National Air and Space Museum facilities at Dulles Airport in FY 1988 - FY 1990.

/4 A facility to replace the leased North Capitol Street administrative center. The amount of \$30,200,000 to be requested in FY 1991 is for site acquisition, planning and construction.

/5 Authorization is being sought for a proposed facility expansion project, presently estimated at approximately \$23 million to be funded with equal parts Federal and Trust funds.



Artist's renderings of the proposed new facility for the Anacostia Neighborhood Museum. Above: The entrance elevation; below: aerial view of the site plan showing the new location on Fort Street. The annex is scheduled for completion in April 1986. Photos by Chris Capilongo.



space or whose space may be required for museum programs. Presently, it is estimated that a Service Center of 250,000 gross square feet will be required. The Institution plans to request \$30,200,000 in FY 1991 for site acquisition, and design and construction of this facility.

Zoological Park and Conservation Center

Zoological Park Redevelopment

Veterinary Hospital - the National Zoo currently operates its animal health, pathology, and basic research program out of inadequate, inefficient and potentially dangerous facilities. For FY 1986, a sum of \$3,300,000 was appropriated to construct a new animal health and pathology building. The existing hospital and research building is now nearly seventeen years old and was an unsatisfactory compromise between needs and available finances when it was first built. It never has met the need for a modern veterinary hospital or the high standards necessary for animal health at the Zoo.

The new hospital building will be completed self contained and built in the vicinity of the existing hospital/research facility. It will contain approximately 17,000 square feet. The hospital will be designed around a large operating room with adjoining anesthesia, diagnostic, pre-operative and recovery rooms. Access to the treatment cluster from the outside will be by way of a wide corridor leading from a large ramp for ambulances. Unlike the old hospital it will incorporate modern ergonomic principles. The modern design will facilitate good medical practice and eliminate the problems encountered in the present design. The old hospital space will be refurbished to provide much needed modern research space with is programmed for funding in FY 1987.

Research Facility - With the construction of the new hospital facility at Rock Creek, the existing health and research facility will be renovated to house all research functions of the National Zoo. The renovation will correct several structural and mechanical deficiencies and will provide the Zoo with a first rate research facility including five environmentally controlled animal holding rooms; animal support areas; research support areas and staff offices. Renovation of the research facility is scheduled to begin in early FY 1987 at a cost of \$2,500,000.

Olmsted Walk - Restoration and construction of the Olmsted Walk was started in FY 1985 with emphasis given to preserving and enhancing the natural and historical character of the Park. Some exhibits along the Walk will be renovated to enhance the visitor's experience in viewing the animals. New surfacing materials for the Walk, adequate drainage, new landscaping, additional benches and drinking fountains and improved graphics will be provided. These efforts will assist in unifying the exhibits and grounds, providing a pleasant and educational experience at the National Zoo. The central walk way through the Zoo will then have a pedestrian ambience. Construction is phased through FY 1988.

The first phase (through FY 1986) will concentrate on the section of Olmsted Walk from the Rock Creek entry up to the Great Ape Facility. This phase will create an identifiable pedestrian entrance at the Rock Creek

side of the Zoo which will allow visitors a proper orientation point at the beginning of their visits. A new Gibbon Facility and modified tortoise yard will be included in this phase. The main walkway will be modified to loop around in front of the reptile and monkey houses by constructing a winding walkway more in line with the spirit of the original Olmsted design. This phase is scheduled to be completed by the fall of 1986.

The second phase programmed for FY 1987, will renovate the opposite end of the Olmsted Walk which starts at the entrance on Connecticut Avenue. At the entrance to the education building, a plaza will be created which will include an information kiosk. Walkways adjacent to the existing sable antelope, bongo and dorcas gazelle exhibits will be modified to provide access to the plaza.

The final phase programmed for FY 1988, will modify the Walk from just past the education building to the Great Ape Facility. The Walk, in this area, will be renovated to provide the visitor with a better view of the surrounding exhibits. A third entry point to the Walk will be constructed in this phase.

Aquatic Exhibits - Unlike the aquarium in Baltimore, the proposed aquatic habitat facility will include not only fishes but the full range of aquatic animals. These will include aquatic mammals, birds, reptiles and amphibians. Another essential difference is that the NZP will concentrate on freshwater animals while Baltimore concentrates on animals found in the marine ecosystem. Hence, the two facilities will be complementary and not duplicative. Together with the invertebrate exhibit slated for opening in the summer of 1986, the proposed aquatic habitat facility fills the last gap in the Zoo's presentation to the public of representatives of all the major animal groups. To date emphasis has been placed almost exclusively on terrestrial animals in our natural world despite the fact that over sixty percent of the world's vertebrate animals are fishes. The animals proposed for exhibition will include those not heretofore exhibited in most zoos. The world of aquatic animals is little known to the public, and hence the proposed exhibit provides an excellent opportunity to educate and entertain the general public on these engaging and important groups of animals.

The first phase estimated at \$2,500,000 is programmed for FY 1987 construction funds. This phase incorporates a tropical forest and stream displaying aquatic mammals with appropriate fish, invertebrates, birds and amphibians, as well as appropriate vegetation. An amount of \$10,500,000 is estimated to complete the design and construction of the facility, and prospects for raising private funds in lieu of appropriations are under review.

General Services and Parking Facility - Additional Zoo redevelopment savings are anticipated by reducing the scope of the second phase construction of the General Services and Parking Facility; \$1,500,000 will be sought for design and cost estimate in FY 1989. The present estimate for construction of this facility is approximately \$16,000,000. This estimate will be updated and construction funds of \$12,000,000 will be sought in FY 1990. The Institution plans to offset some construction

expenses by using parking revenues being held in trust to help meet this need and which are expected to amount to approximately \$4,000,000 by FY 1990. For over a decade the Institution has recognized the requirement for a centralized parking facility at Rock Creek. Such a facility would allow the return of several surface parking areas to animal exhibition spaces and also increase green space around the central exhibition area of the Park. The areas freed of present use as car parks are the only flat areas remaining at the park for exhibit use. The proposed parking garage would include approximately 1,100 spaces compared to the existing 250 spaces on the site contiguous to the present General Services Building. A pedestrian walk and tunnel would be constructed to allow visitors unimpeded access to the central Zoo animal area.

Savannah and Plains Animals - An exhibit of prairie and plains animals will be created on the present site of parking lot "B", located north of the elephant house. The area will be viewed from Olmsted Walk. The Zoo does not presently have exhibits on flat terrain which might simulate the openness of the African Savannah. Amounts of \$150,000 in FY 1990 and \$1,500,000 in FY 1991 will be requested for designed and construction respectively.

Renovation and Repairs - In addition to the redevelopment Master Plan, the Zoological Park is responsible for a continuing program of major maintenance and repair of its real property (buildings, grounds, utilities and equipment). The Zoo has sixty separate structures of which eighteen are major buildings. The current plant value is over \$100 million and \$1,400,000 to \$2,000,000 will be required annually for structural, mechanical and electrical repairs and renovation of the physical plant to support the Zoo's mission at a satisfactory level.

Conservation and Research Center

Pachyderm Facility - This project will provide a facility to house large hoofed stock for research and breeding. The site chosen is well suited for this facility and will not be labor intensive as to support requirements. This facility will permit the Zoo to pursue actively the breeding programs for such critically endangered groups as rhinoceroses and tapirs. Amounts of \$400,000 for design and \$4,000,000 for construction will be requested in FY 1988 and FY 1989 respectively.

Water System and Hydrants - Worn and deteriorated water lines throughout the facility must be replaced and hydrants upgraded to meet fire and safety protection standards. The estimated cost is \$550,000, to be requested in FY 1988.

Waterfowl Facility - The proposed waterfowl ponds at the Conservation and Research Center presently estimated to cost \$990,000 will provide outdoor facilities for the study, propagation and rearing of endangered waterfowl and crane species. At the present the center cannot engage in research and propagation of a variety of species that require year-round flat-water surface; consequently, the planned enclosures will include ponds that will be mechanically frost free or air-injected to keep from freezing in winter. Individual ponds will be enclosed with wire mesh

National Zoological Park
Construction Program
1974 - 1991

(\$000's)

<u>Activity</u>	<u>1974-85</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>Repro- grammings</u>	<u>Total</u>
I. <u>Master Plan</u>									
Lion-Tiger Facility ^{1/}	3,000								3,000
Elephant/Bird House	3,130							+ 26	3,156
Education/Administration Bldg.	2,500							-157	2,343
General Services Facility	7,000							+834	7,834
Lower Rock Creek Valley	3,000							- 1	2,999
Beaver Valley Area	6,410							-431	5,979
Central Area	10,390							-266	10,124
Waterfowl Pond and Small Cats	520							- 15	505
Master Graphics	200								200
Veterinary Hospital	300	3,300							3,600
Research Facility	100		2,500						2,600
Entranceway & Olmsted Walk	2,350		600	2,400					5,350
Aquatic Exhibits ^{2/}	1,151		2,500	10,500				- 1	14,150
Parking Facility ^{3/}					1,500	12,000			13,500
Savannah & Plains Animals						150	1,500		1,650
Subtotals	<u>40,051</u>	<u>3,300</u>	<u>5,600</u>	<u>12,900</u>	<u>1,500</u>	<u>12,150</u>	<u>1,500</u>	<u>- 11</u>	<u>76,990</u>
II. <u>Renovations, Repairs & Improvements</u>									
Rock Creek	<u>7,280</u>	<u>1,200</u>	<u>1,400</u>	<u>1,500</u>	<u>1,650</u>	<u>1,800</u>	<u>2,000</u>	<u>+ 11</u>	<u>16,841</u>
Totals, Rock Creek	<u>47,331</u>	<u>4,500</u>	<u>7,000</u>	<u>14,400</u>	<u>3,150</u>	<u>13,950</u>	<u>3,500</u>	<u>--</u>	<u>93,831</u>

(\$000's)

National Zoological Park
Construction Program
1974-1991
(continued)

TABLE 3A (cont'd)

<u>Activity</u>	<u>1974-85</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>Repro- grammings</u>	<u>Total</u>
<u>III. Conservation and Research Center</u>									
Development Plan									
Hoofed Stock Barn	650								650
Small Animal Facility	1,680								1,680
Veterinary Hospital	1,400								1,400
Pachyderm Facility	200			400	4,000				4,600
Water Systems and Hydrants				550					550
Maintenance Facility	50			900					950
Waterfowl Facility				90	900				990
Primate Facility				150	150	1,500			1,650
Road Improvements/Extensions						100	1,000		1,100
Subtotals	<u>3,980</u>	<u>-0-</u>	<u>-0-</u>	<u>1,940</u>	<u>5,050</u>	<u>1,600</u>	<u>1,000</u>	<u>--</u>	<u>13,570</u>
<u>IV. Renovations, Repairs and Improvements</u>									
Conservation and Research Center	<u>5,254</u>	<u>351</u>	<u>351</u>	<u>750</u>	<u>750</u>	<u>800</u>	<u>800</u>	<u>--</u>	<u>9,056</u>
Totals, Conservation and Research Center	<u>9,234^{4/}</u>	<u>351</u>	<u>351</u>	<u>2,690</u>	<u>5,800</u>	<u>2,400</u>	<u>1,800</u>	<u>--</u>	<u>22,626</u>
GRAND TOTALS	<u>56,565</u>	<u>4,851</u>	<u>7,351</u>	<u>17,090</u>	<u>8,950</u>	<u>16,350</u>	<u>5,300</u>	<u>--</u>	<u>116,457</u>

1/ Excludes \$275,000 for planning appropriated in FY 1973.

2/ FY 1987 Phase I funds are to be followed by Phase II in FY 1988; prospects of raising private funds for Phase III in lieu of appropriations are under review.

3/ Citizen participation, through parking revenues will contribute approximately \$4,000,000 to the estimated construction costs of \$16,000,000 by FY 1990.

4/ Excludes \$125,000 appropriated in FY 1975 under Restoration and Renovation of Buildings Account.

fence and wire mesh ceilings. The location of the proposed complex will be the lowland area below the present hardy bird yard.

Primate Facility - This facility will enable the Center to expand the variety and number of primates accommodated in research programs while providing better protection of animals from communicable diseases to which these species are highly susceptible. The Zoo already has an international reputation for primate breeding programs. The building will be located in the core area, close to the small animal facility and veterinary hospital. Amounts of \$150,000 and \$1,500,000 are estimated for design and construction, and will be sought in FY 1989 and FY 1990 respectively.

Road Improvements/Extensions - This project includes providing access to new facilities with existing roads, and extending paved roads to outlying animal facilities. The work is expected to cost about \$1,100,000 and is planned for FY 1990 and 1991.

Renovation and Repairs - The Conservation and Research Center includes eighty-nine facilities of various types, containing approximately 236,000 square feet of space, two and one-half miles of paved roads, twenty miles of jeep trails and thirty miles of fences and all related utility systems (sewer, water, electricity). This account is used to complete necessary repairs to structural, mechanical, and electrical components of the Center's physical plant, and is expected to cost about \$800,000 per year at the end of this planning period.

Restoration and Renovation

The Restoration and Renovation of Buildings (R&R) account is used to fund building repairs, alterations and improvements, as well as the construction of additions to existing facilities and minor new facilities. Substantial annual funding is required in order to assure preservation and effective operation of the Institution's buildings; to provide a safe environment for visitors, staff and collections; and to meet program objectives.

The Institution's buildings and other facilities (other than the Zoo) consist of fourteen museums and galleries (including the Quadrangle now under construction) in Washington, D.C. and New York City housing research and collections management activities and a wide range of exhibitions in the fields of science, history, technology, and art. Also included are facilities at Suitland, Maryland, for the preservation and storage of collections, and display of air and spacecraft; centers for biological research, conservation, and education in Panama, and on the Chesapeake Bay, in Maryland; an oceanographic research station at Fort Pierce, Florida; a center for astrophysics in Cambridge, Massachusetts, and the Whipple Observatory on Mt. Hopkins, near Tucson, Arizona; and a number of administrative, storage, reference, distribution, and other supportive facilities primarily in leased space.

Since many of the Restoration and Renovation projects requested each year require one or more years of planning and design before a bid

solicitation can be issued, it is necessary to forecast and organize this work several years in advance of seeking appropriations. In the early 1970's, the Institution's annual R&R budget totaled several million dollars and has increased as of FY 1985 to a level of about \$14,000,000. While this level of funding will continue to meet a wide range of Institution repair and improvement requirements, it is not sufficient to accomplish a number of major projects such as terrace replacements estimated at more than \$3,000,000 each, heating, ventilation and air conditioning system replacements that range in estimated cost from \$11,000,000 up to \$56,000,000 at the Natural History Museum; and fire detection and suppression improvement throughout the Institution estimated in excess of \$18,000,000.

In the past, the Institution has attempted to phase over several years projects of significant magnitude. While a number of these planned projects will continue to be phased in order to keep buildings and programs in operation, it is not practical or economical to phase these projects over, say, a five to ten year period. Such phasing would increase significantly the estimated cost and require re-bidding each project each year, would be costly, difficult to manage, and extremely complex to affix responsibility and liability upon completion.

The FY 1986 R&R appropriation request of \$14,875,000 reflects the Institution's commitment to acquiring and sustaining a level of funding consistent with the size, diversity, and age of Smithsonian facilities and known work requirements. The following major projects are planned for FY 1986: roof and facade repairs at the Arts and Industries Building (\$1,500,000) and skylight repairs at the Freer Gallery Building (\$400,000); continued implementation of the fire protection master plans for the Natural History Building (\$300,000) and the American History Building (\$300,000); continued removal or encapsulation of asbestos located in several Smithsonian buildings (\$500,000); continued implementation of heating, ventilating and air conditioning and energy conservation improvements in the American History Building (\$1,000,000), implementation of an energy conservation plan at the Natural History Building (\$235,000); imitation of installation of a master raceway for communications systems between the Mall museums (\$250,000); construction of dormitories at Naos (\$415,000) and Gamboa (\$220,000), and a dining and conference facility at Barro Colorado Island (\$665,000) for the Tropical Research Institute; renovation of the basement (\$2,000,000) and excavation of the courtyard (\$2,500,000) of the Freer Gallery of Art; and the final renovation to various buildings to accommodate the proprietary security system.

General Repairs and Improvements. Funds requested in this category support projects that do not lend themselves to discrete categorization, as well as minor emergency repairs, such as equipment failures or structural defects that cannot be anticipated and that arise from heavy use, extreme weather conditions, or other circumstances. Examples of projects in this category are interior repairs to floors, ceilings, partitions, doors and building hardware; space renovations which would create additional or more effective space for program activities; renovations of exhibition and other public space; repairs to roads and walkways; elevator

and escalator repairs; the lighting improvements. A total requirement of approximately \$5,665,000 is anticipated for this planning period (FY 1987-FY 1991).

Facade, Roof and Terrace Repairs. Maintaining the integrity of the exteriors of all Smithsonian buildings is critical to preventing major structural damage and deterioration due to age and weathering, and to ensuring a safe environment for visitors, staff, and collections. Energy conservation also demands weather tight exteriors. Work in this category includes a variety of major projects, such as roof replacement, repointing and recaulking facades, plaza resurfacing, exterior painting, and window repairs. Requirements that fall under this category of repairs have become apparent in some of the Institution's newest buildings as well, and must be corrected. In addition to major projects, a scheduled program of maintenance and upgrading to protect building exteriors must be performed annually.

Work is continuing on the renovation of the exterior the Arts and Industries Building. Completion of the roof replacement, repointing of the masonry facade, extensive window replacement, and replacement of gutters and downspouts is expected in late 1987. Funds of \$8,900,000 appropriated since FY 1981 are being used to continue exterior restoration on a quadrant-by-quadrant basis. Amounts of \$1,500,000 and \$2,500,000 will be required in FY 1986 and 1987 respectively, in order to complete this project.

Work is nearly completed on the renovation of the facade of the 120 year old Renwick Gallery Building. The Institution received approval from the Commission of Fine Arts and the Joint Committee on Landmarks for the use of precast concrete in lieu of natural stone to assure that the eventual repairs will provide a permanent solution to the problem while maintaining sensitivity to the building's status as a National Historic Landmark. The amount of \$5,950,000 appropriated through FY 1985 will be used to complete this project.

Additional projects scheduled during this planning period include replacement of terraces at the Air and Space Museum and the Hirshhorn Museum, facade repairs at the Air and Space Museum roof repairs at the Renwick Gallery and the Carnegie Mansion, facade repairs and roof replacement at the Natural History Museum, skylight and roof repairs at the Freer Gallery and facade repairs and window replacement at the Smithsonian Institution Building. This and other work is expected to cost approximately \$19,610,000 between FY 1987 and 1991.

Fire Detection and Suppression System. The Institution is continuing to develop and implement plans for upgrading fire protection systems in all buildings in order to provide a level of safety consistent with today's standards and technology. Work in this category includes such items as the installation of heat and smoke detection systems, sprinkler and chemical suppression systems, and fire doors and walls. Improved systems are installed as exhibitions are changed, and fire retardant materials are used wherever possible.

The implementation of comprehensive fire protection master plans is in progress at both the Museum of Natural History and the Museum of American History. Construction includes the installation of upgraded sprinkler systems, new smoke detection systems, fire pumps, generators and control panels, and architectural modifications to create more efficient fire zones. A total requirement of approximately \$9,635,000 is anticipated for this planning period, of which about \$4,025,000 will be required for the Museum of Natural History and American History. Other fire protection projects planned for the next five years include the installation of fire zones and additional sprinklers in the Smithsonian Institution Building and the American Art Museum and the Portrait Gallery. In addition, a fire protection master plan will be developed and implemented for the Air and Space Museum, and the master plan for the Arts and Industries Building will be revised to reflect changes in space use.

Access for the Disabled, Safety and Security, and Correction of Hazardous Conditions. Substantial progress has been achieved in eliminating architectural barriers at Smithsonian buildings. Several Smithsonian facilities still require additional modifications to meet recently updated standards for disabled person access. These projects are scheduled to be accomplished during this planning period.

The elimination of exposed asbestos insulation located in several buildings continues to be a high priority. An amount of \$500,000 is included in the FY 1986 budget request for this purpose, and approximately \$2,500,000 will be applied to the correction of this problem between FY 1987 and FY 1991.

Other projects in this category include replacement of tile in the Great Hall of the American Arts/Portrait Gallery Building; entrance modifications at the Natural History Museum; entrance grate and emergency door replacement at the Air and Space Museum; modification for disabled access at the American History Building; installation of an elevator and freight lift at the Anacostia Neighborhood Museum; and security lighting in the Mall. The total required during the planning period is approximately \$5,890,000.

Utility Systems Repairs and Improvements. Upgrading the heating, ventilating and air conditioning (HVAC) equipment and controls in Smithsonian facilities will contribute, more than any other factor, to the reduction of energy consumption. The HVAC systems in most buildings were designed with neither the goals of current energy standards nor the advantages of technologies that are now available. Major improvements are required, as well as minor maintenance and repairs, to achieve energy efficiency, to ensure reliability of existing systems, and to maintain environmental conditions necessary for the protection of the collection. Equipment requiring upgrading or replacement includes such items as air handlers, chillers, pumps, coils, fans, compressors, cooling towers, electronic controls, and exhaust and filtration systems. This category of work also includes associated electrical and plumbing repairs and improvements.

Based on the results of study and design efforts, major HVAC renovation projects and energy conservation improvements are planned for the

next five years at the Natural History (\$16,930,000), American History (\$7,500,000), Arts and Industries (\$10,500,000), and American Art/Portrait Gallery Buildings (\$4,050,000). Energy conservation improvements also will be made at the Hirshhorn (\$675,000), the Renwick Gallery (\$1,000,000), the Cooper-Hewitt Museum (\$1,675,000), and the Air and Space Museum (\$500,000). A utility system study and energy audit will be conducted and implemented at the Smithsonian Building.

In response to the increasing need for automation of Smithsonian offices and for access to data base management systems, as well as projected uses in the near future of additional computer and electronic services for research, collections management, education and exhibition purposes, the Institution has developed a plan to interconnect the systems through a common communications pathway or master raceway system. Installation of such an interconnecting system will significantly reduce the costs of independently connecting individual systems as they are needed for various purposes, but will also provide a higher degree of interaction among the different kinds of systems, including data and word processing systems, sensing systems for energy management, an expanded telephone system, telexes and facsimile machines, and video systems for exhibits and educational purposes. The Institution is requesting \$250,000 in FY 1986 and \$500,000 in FY 1987 to begin installing a raceway system within and between eight buildings in the Mall area which will accommodate electronic requirements anticipated over the next ten years. An additional amount of \$6,000,000 is expected to be sought through FY 1991, in order to extend the raceway into each of the eight buildings, to each work station, office or exhibit area.

A July 1985 regulation issued by the Environmental Protection Agency requires replacement of all high-voltage electrical transformers containing cancer causing chemicals known as PCBs by the year 1990. The Institution has fifty-nine of these transformers in various buildings and is currently evaluating each transformer to determine the most cost-effective method of complying with this requirement. An estimated amount of \$3,550,000 will be needed during the planning to complete this project.

Projects in the utility systems category are estimated to cost \$53,540,000 from FY 1987 through FY 1991.

Other Projects: Included in this category are space modifications and renovations to accommodate changing program requirements, sometimes in conjunction with major roof and HVAC projects or other construction activities that offer improved office and collections storage space conditions. Renovations are projected during the planning period at the Museum of American History, the Museum of Natural History, the Arts and Industries Building, Smithsonian Building, and the American Art and Portrait Gallery Building to take advantage of additional space available for program use by reduction of space needed for utility and mechanical systems and the expansion of program activities into new facilities, such as the Museum Support Center, the Quadrangle and General Post Office Building. Also included in this category are projects at Suitland to modify metal storage buildings for collections management purposes, construction of a dormitory at the Whipple Observatory, and a day care center. Advanced planning funds will also be requested to enable the

Smithsonian to prepare better cost estimates for future projects and to reduce the effects of inflation on construction costs by providing design capability prior to receipt of project appropriations. Total R&R requirements in this category are estimated at \$41,155,000 through FY 1991.

A more detailed and comprehensive listing of R&R appropriation requirements by facility is contained in the Institution's FY 1987 budget request.

TABLE 4

RESTORATION, RENOVATION & OTHER CONSTRUCTION

<u>Fiscal Years</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>Totals</u> <u>FY 1987 - 1991</u>
<u>RESTORATION & RENOVATION</u>							
General Repairs & Improvements	475	830	1,155	1,300	950	1,430	5,665
Facade, Roof & Terrace Repairs	2,600	3,930	2,400	3,280	5,725	4,275	19,610
Fire Detection & Suppression	1,000	1,255	2,580	2,100	1,900	1,800	9,635
Access for Disabled, Safety & Security & Correction of Hazardous Conditions	1,000	900	1,770	1,620	700	900	5,890
Utility System Repairs & Improvements	1,745	3,005	9,230	12,920	14,830	13,465	53,540
Other Projects	7,995	5,990	6,115	6,900	8,050	14,100	41,155
<u>TOTALS</u>	<u>14,875</u>	<u>16,000</u>	<u>23,250</u>	<u>28,120</u>	<u>32,155</u>	<u>35,970</u>	<u>135,495</u>

Note: All projected costs for FY '86 - FY '91 are in 1986 dollars.

BEYOND FY 1991

There is merit to looking further ahead than just five years in communicating to OMB, Congress, and others the Institution's operating and capital objectives and in planning for resource levels to match the Smithsonian's basic growth aspirations. The Smithsonian must look ahead ten to fifteen years if it is to continue to be successful in meeting its responsibilities to the public, the museum and scholarly communities, and the nation. This chapter presents a brief summary of longer-range possibilities based on existing institutional policies, and projections to about FY 2000.

Basic activities in exhibition, collections management, and other programs, of course, will continue. Research programs will continue to be emphasized as will, quality services for the visiting public and Associate members. New buildings, where necessary, and careful attention to those now under the care of the Institution, require longer-range thinking if results are to be useful to the public. The most effective use of available federal and trust resources in achieving general objectives will continue to motivate overall management planning. As the planning period is extended, however, it becomes increasingly difficult to detail the varied opportunities and related management choices which will emerge. Nevertheless, it is possible to set down institutional desires, directions, and resources which can be realized if conditions external to direct management control permit. In interpreting materials contained in this chapter, it is important to highlight the following.

- . A generally favorable economic situation is assumed to prevail over time. The Administration is predicting that inflationary pressures on the nation's economy will continue at relatively low rates. For purposes of describing institutional plans beyond 1991, inflation is assumed to have only minimum influence.
- . Essential levels of appropriations for capital and operating projects as outlined in the preceding chapters for years FY 1987-1991 will be forthcoming from the Executive and Congressional branches of government.
- . Visitation will remain strong.
- . Public acceptance of the Institution's various programs and products, and supporting trust funds generated through investments' Associates and auxiliary activities will continue to allow net proceeds to grow moderately and to be applied to Smithsonian objectives as approved by its Board of Regents.
- . Future transfers to the Institution of historic buildings that might be preserved for Smithsonian use are possible, but the timing is not known. Likewise, it is not possible

to speculate on the availability of major new gift collections that might require special housing for display or other purposes.

Given these general assumptions, Smithsonian management predicts continued success through the turn of the century in developing resources to serve the public and the nation through its varied programs.

Program Expectations

With regard to longer-run developments, the Institution's activities have always spanned national and international interests, but in future years its multinational character should begin to flourish in an even greater fashion, and, in keeping with longer-run natural and cultural forces, help lead to a more singular world community.

The construction of the Quadrangle, now planned for opening in 1987, is basically an effort to provide the Institution with appropriate and sufficient space to display the great art and history collections of Near and Far Eastern and African cultures. In the ensuing years, its programs will provide a window on the Mall for cultures now representing two-thirds of the world's population, spanning an area from Japan, through Asia, the Middle East, and Africa. The roots of these cultures run deep, and the contributions to man's development from these areas have been and will continue to be a pervasive force in the world. The Quadrangle and its programs will promote the long-run causes of international research, peace and understanding. While the content of the Institution's longer-range exhibition programs, as in the past, will focus on historical events important to the development of the nation, of Man and his culture, and be based on the latest findings and interpretations of the international community of historians and scientific investigators, in general, exhibitions can be expected over time to take on more of an international flavor, reflecting the interdependence of nations in pursuing essentially common cultural and humanistic goals in a world of limited natural resources.

The Institution expects to apply increasing emphasis to its research programs, especially in collections related areas and where it has developed considerable expertise such as basic taxonomy and systematics, monitoring the effects of long-term environmental change, examining the basic components of matter, studying the universe, and expanding knowledge of animal behavior. Research endeavors expected to be more thoroughly cultivated and developed include archeometry, species conservation and propagation, studies of biological and diversity and man-related disciplines. Emphasis also will be placed on biological and systematics research to understand the basic properties of nature. The rapid development of new techniques and fabrication of new instruments in the field of astrophysics now opens the possibility of constructing telescopes to see in regions previously limited by technology. The Astrophysical Observatory is particularly interested in submillimeter wave lengths, perhaps the "last frontier" for ground based astronomical observations, and in future years will be adding to the store of astronomical knowledge in this area. The results of Institutional planning efforts, stemming

from the period FY 1987-FY 1991 and including seminars, lectures, conferences, and special research projects, will be coming to fruition as related to the commemorations surrounding the Columbian Quincentennial.

Attention to basic aspects of managing collections will continue. The Smithsonian will always have major responsibilities directed to the preservation and care of collections. Objects made by man, or collected by him from nature, are the tangible products of his historically persistent struggles to comprehend and live with his environment, extend his mastery over it, improve his condition, and express his spiritual aspirations. The collection, interpretation, preservation, and transmission of knowledge related to natural collections and important objects is essential if this and future generations of people are to measure and understand the character of international cultural and natural change. The programs housed at the Museum Support Center building will be fully operational by the mid-1990s. The facility and its programs were fundamentally conceived more than a decade ago to provide space, laboratories, training areas, and equipment, all designed for the efficient storage, study, care and preservation of collections. In a visible fashion in future years, the Center and its operations represent the Institution's commitment to apply the most advanced research, conservation and preservation techniques known to minimize the unavoidable toll of time on the products and discoveries of Man, and to allow them to be passed on as a resource for future research and exhibition.

Educational programs and services to the public, including classes, teaching materials, publications and other media activities, are expected to grow in number and variety. They will be produced and presented in a style and format which will be in keeping with the changes that will be taking place in the nations classrooms, and in television and communications technologies.

Operational Funding

With regard to federal funding growth associated with operations, the Smithsonian expects to keep abreast of inflation; obtain the necessary resources to implement its programs being planned for the Quadrangle and Support Center; become heavily involved in new research activities as described earlier; experience some continued moderate increases for collections care, exhibitions, education, and other program opportunities as they arise; and extend its influence as a facilitator of new ideas and concepts in national and international scholarly communities.

Essential levels of S&E operating resources through FY 1991 are projected in earlier chapters as approximating \$280,000,000[†]. For illustrative purposes, even using a four percent annual growth figure to cover inflationary cost increases and program requirements (beyond those which can reasonably be supported through reallocation of base funds), the Institution would be operating at an appropriation level approaching

[†] Projected level of S&E resources including future year legislated pay increases.

\$400,000,000 in FY 2000. A federal operating level of this magnitude seems incomprehensible when viewed from today's perspective. This figure, however, is conservative, and a genuine indication of what could happen.

As in federal operations, the basic approach regarding long-range trust prospects is a conservative one. Sustained moderate growth in the Institution's endowment is a high priority now and will continue to be throughout the foreseeable future. During FY 1975-1985, pursuant to the Board of Regents' policy of increasing the Institution's endowments, the market value of endowments in restricted and unrestricted areas grew from around \$42,000,000 to nearly \$150,000,000 as a result both of gifts and transfers to these funds, as well as sound investment. Assuming a comparable economic climate and sound management investment choices, that performance should continue. It is planned that a prudent portion of the Institution's net revenues will continue to be added to the unrestricted endowment and that gifts for restricted purposes will also continue.

Overall, by the turn of the century, if trust revenues are sufficient to offset the effects of inflation, the Institution hopes to be able to increase its net earnings from auxiliary and business-related activities to about \$40,000,000. The pattern of applying unrestricted net funds throughout future years to institutional operations is expected to be much the same as now: to enhance endowments; to fund Board of Regents' approved programs in research, fellowship, exhibition, and education areas; to enhance program activities with the museums and bureaus; and to support central institutional administrative requirements.

Grants and Contracts

Grants and Contracts from the federal government have been a significant source of funds for Smithsonian contributions to scientific and cultural advances almost since the Institution's establishment. Government interest in support of the national basic research enterprise is expected to continue, and to nourish through the grant and contract mechanisms quality investigations into selected areas. The Institution has distinguished itself in various research disciplines, and intends to continue to do so over the long run, partially through sustained grant and contract work received from the federal government, as well as its other sources of funding.

Foreign Currency Program

The Smithsonian has conducted programs with excess foreign currency funds since 1965. Foreign currency projects, consisting of grants to American institutions of higher learning, including the Smithsonian itself, museum professional exchanges, and occasional restoration projects of international importance such as the Temple of Philae in Egypt, Moenjadaro in Pakistan, have occurred in most of the excess currency countries. The results have been amply reflected in publications, conference presentations, and exhibits, and in sustained scholarly relationships. The countries where excess currency projects could be funded have been greatly reduced. Opportunities may be even more limited over the

longer run if presently available currencies diminish even further. While the international context changes periodically, the Smithsonian expects its program to remain active as long as currencies are available.

Buildings and Facilities

At the end of FY 1985, the Smithsonian occupied approximately 4,500,000 square feet of building space, owned or leased, for all purposes in facilities located in Washington and elsewhere. By FY 1991, with the occupation of the planned Quadrangle facility, the essential completion of planned facility work for the Zoological Park in Rock Creek, and other institutional research and administrative facilities, space occupied by the Institution will approximate 5,200,000 square feet. By FY 2000, if the Institution continues to be successful in planning and accommodating its major space objectives, space available might approach 7,000,000 square feet. Implicit to the projections beyond FY 1991 are the following general institutional objectives:

- . Consolidation of program, administrative, and support operations into Smithsonian-owned facilities on properties controlled by the Institution or the federal government, and the minimum reliance on leased or rented locations.
- . Continued phased development of the Suitland and Front Royal properties for controlled warehousing, preservation, conservation, and study of the collections and propagation of endangered species.
- . Acquisition of facilities convenient to the Mall to accommodate some museum activities, administrative office activities, and light industrial-type operations for technical and administrative support of museum operations.

Institution facility requirements will be restudied at appropriate intervals and management is not presently committed to any FY 1991 or beyond planned building configuration or schedule for appropriations and construction. The Suitland location, however, seems ideal for fulfilling many of the Institution's consolidation and collection management objectives. The building recently opened at Suitland permits the Institution to meet many collections storage needs primarily in the natural history area, and establish training and other conservation program space. A subsequent phase of development at Suitland would alleviate emerging collection storage pressures in the other bureaus. After 1991, as currently envisioned next development steps for the Suitland properties include an additional pod for the current building, a storage and laboratory building for the history and art functions, and a central facility for the libraries.

Zoological Park. Further development of the National Zoo beyond 1991 is dependent on the results of the revised Master Plan. In this context visitor services will be reevaluated to determine the most cost effective means to service the Zoo visitor and yet preserve the natural and historical character of the Park. The development plan for the

Conservation and Research Center at Front Royal is being reviewed with a number of projects anticipated beyond FY 1991.

Other Science Facilities. Additional development of science facilities in the period beyond 1991 will include improved research space for the Smithsonian Environmental Research Center at the Edgewater, Maryland, Chesapeake Bay site. The site includes about 2,600 acres of significant shoreline property on the Rhode estuary, marshes, forest, and former agricultural areas. Present facilities at the Edgewater site include a renovated dairy barn with a new laboratory wing addition, an education and dormitory building, and miscellaneous small buildings which provide for storage and vehicle and boat maintenance, and several trailers. An early assessment of need suggests that a modern laboratory building, scientifically equipped greenhouses and a wet laboratory with fresh and salt water tanks would be needed as well as extensive access and utility improvements. It is contemplated that the activities associated with the Rockville activities will be housed on a university campus in a cooperative agreement.

There also is a long-term need for a storage and preservation facility for large air and space craft. The museum visitor of the next century will be as interested in the Space Shuttle as the scholar or visitor of 1985 is in the Kitty Hawk flyer. Included during the five-year construction program for FY 1987-1991 are funds for design and construction of a hanger-like building proposed to be constructed adjacent to Dulles International Airport as an initial phase of this project. In later years, beyond FY 1991, it is currently envisioned that perhaps additional structures of this type will be constructed.

Anacostia Neighborhood Museum. Presently, the Museum's administrative staff and exhibition space are located in a leased building that is unsuitable for long-term occupancy. An annex building is being constructed over FY 1985-86 on federal land in Anacostia adjacent to the present Exhibits Lab building at Fort Stanton Park. Completion of this structure should allow the Institution to vacate the leased property. Planning for a new and modern museum building will be started during this planning period, a project is tentatively scheduled for beyond FY 1991.

Administrative Office Building. The Institution now is reassessing its use of all Mall and leased space, including the effects on this space resulting from occupancy of the Museum Support Center and anticipated completion of the Quadrangle project. In expectation that some leased space will continue to be required, the Institution needs to consider purchase or construction of office space near the Mall in order to reduce the longer term budget effects of continued rental escalation. In 1972, space at L'Enfant cost about \$8.50 per square foot and now costs \$23 per foot. Assuming that a purchase or construction cost could be amortized over a 10 to 20 year period at yearly expense not exceeding current annual rental costs, then, these rental funds could eventually be put to other program purposes.

Mall Site. The property bounded by Third Street, Maryland Avenue, Fourth Street, and Jefferson Drive has been reserved by Congress for the future public use of the Smithsonian (P.L. 94-74, approved August 8,

1975). There are currently no plans for the development of this site, but the Institution will continue to consider potential use of the land for establishing a last major Smithsonian Mall museum. In the meantime, it is expected that the site will continue to be used for temporary exhibitions and other purposes by federal and other organizations.

Maintenance and Improvements of Buildings. The Institution currently occupies many older buildings of cultural and historical importance to the nation, such as the headquarters Castle Building, the Arts and Industries Building, the Old Patent Office Building, the original Corcoran Art Building, and the Barney Studio House. As time passes, these buildings will continue to require added resources to assure their preservation and continued usefulness to the public and the Institution. In addition, many buildings of more recent construction will begin to require more attention.

At the present time, the Institution is devoting about \$14,000,000 to \$15,000,000 of federal funds annually to the renovation and restoration of its buildings, exclusive of utilities, custodial care, and basic maintenance provided through the operational budget. The annual figure fluctuates somewhat, but the Institution foresees a need to increase its renovation and restoration efforts to about \$36,000,000 per year during the next five-year period. Management will make periodic assessments of the adequacy of this level of funding and, within the framework of future years' available renovation and restoration funds, the Institution will continue to make improvements at various locations. Beyond FY 1991, renovation, restoration, and modifications to existing space and systems in Mall and other buildings for exhibitions, research programs, access by the handicapped, fire, safety and health programs, energy conservation and the general preservation of historic facilities will continue to be among the highest priorities of the Smithsonian.

If these improvements and additions to the Institution's physical plant occur, there will, of course, be related operating costs for necessary personnel, utilities, equipment and other items, to be funded largely through the federal appropriations process. While some operating and equipping needs have been estimated through FY 1991 for the Quadrangle, the General Post Office, and facilities associated with the Zoological Park, it is too early to speculate about similar resources related to longer-range building possibilities. This will be done, however, as plans become firmer and as the time horizon shortens to the three-to-five-year period usually associated with legislative, appropriation, and construction cycles for physical plant additions.

As refinements are made to the Institution's long-range construction and operational aspirations, Congress, the Executive Branch, and other constituents will be kept fully informed through every means of communication, including the Prospectus.

TABLE 5

QUADRANGLE:
ESTIMATED RESOURCES
ASSOCIATED WITH PROGRAM
AND SUPPORT OPERATIONS¹

(\$000)

<u>Activities</u>	<u>FY 1987</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Program Operations ²					
Federal	\$ 7,552	\$ 7,387	\$ 7,734	\$ 7,959	\$ 7,959
Trust	23,226	23,505	24,012	24,804	25,621
Support Operations ³					
Federal	3,167	3,475	3,491	3,514	3,514
Trust	-	-	-	-	-
Utilities	780	819	860	903	948
Totals					
Federal	\$11,499	\$11,681	\$12,085	\$12,376	\$12,421
Trust	\$23,226	\$23,505	\$24,012	\$24,804	\$25,621
	\$34,725	\$35,186	\$36,097	\$37,180	\$38,042

¹This table is meant to provide an overview of operational costs of those program units that will be occupying the Quadrangle, plus building and ground maintenance, utilities, some support for central offices, and trust operations. Not included are Freer Gallery of Art operations since base funds are not directed to Quadrangle activities.

²Program operations include the Museum of African Art, the Sackler Gallery (part of the Center for Asian Art, along with Freer Gallery) National and Resident Associate Programs, the International Center, and the Traveling Exhibition Service.

³Support operations, for purposes of this table, include costs for protection and security, building and grounds maintenance, libraries requirements, exhibits central, accounting, personnel administration, public service support, and plant operations.

⁴Additional resources for operations and support will be raised from trust funds and donors to augment programs and selected activities in dollar amounts that cannot be estimated at this time.

APPENDIX I

APPLICATION OF SMITHSONIAN OPERATING
RESOURCES FY 1985 AND PROJECTED THROUGH
FY 1991 BY ORGANIZATION

NOTE: The brief descriptions by bureaus cover facilities construction, restoration and renovation projects as well as operational plans, while the dollar projections pertain only to federal or trust operational expenditures. For further information on projected facilities project costs see the Facilities Planning, Construction, Restoration and Renovation Chapter.

SCIENCE

Assistant Secretary for Science. Administration of Science programs rests with this Office; guidance, planning, and overall policy direction for scientific research efforts and science related education and exhibition activities are provided through the Assistant Secretary.

Museum of Natural History (NMNH). In response to the growing concern about the global loss of biological diversity, the NMNH over the planning period will undertake a number of important new initiatives. In part, these initiatives will bolster efforts at correcting an alarming decline in the conduct of systematics, a fundamental field upon which more advanced ecological/evolutionary studies must rest. Several new programs are planned in the study of the biological diversity of tropical Latin America and Afro-Asia, the archeology and anthropology of the native peoples of the Arctic, and the effects of early migratory man's historical disturbances on island ecosystems in the Caribbean, the oceanic Pacific and the insular regions of southeast Asia. The Museum also expects to participate in planning of a national project (with multiagency support and in collaboration with universities and natural history museums) to survey and inventory the biotic resources of the U.S. The project will better assess U.S. plants and animals and their potential utility to man. A special effort will be made to make more information available about American Indians to both the research community and to the public through increased accessibility and display of collections and other activities. NMNH will continue its inventory, transport and conservation of research collections to be housed at the Museum Support Center. The Museum will also put emphasis on replacing worn out or outmoded scientific equipment. For facilities, efforts will continue to upgrade the educational, exhibits and public service functions of NMNH to better meet the needs of the more than 6 million annual visitors by improved displays, museum shops and public dining facilities.

Astrophysical Observatory (SAO). The major instrumental theme for research during the planning period will be based on increased resolution both spatially, via interferometry, and spectrally, in all accessible wavelength bands. In keeping with this theme, a submillimeter interferometry instrument is planned. Submillimeter wavelengths represent a "last frontier" field; they are the only part of the electromagnetic spectrum yet to be explored in astronomy. SAO plans to construct an array of submillimeter wavelength telescopes on a high dry mountain top. This array would act as an interferometer achieving spatial resolution at least ten times finer than is currently available or planned by others. Detectors at wavelengths from x-ray through submillimeter are critical components of SAO's research theme and development and test of improved detectors will be pursued. Improvements are also scheduled for the telescopes at the Fred L. Whipple Observatory and for the facilities there, the latter via a new base camp. An essential ingredient for SAO scientists to keep in the forefront of astrophysical research is modern equipment and a program of replacement and improvement of laboratory and computer equipment will continue over the period. The Observatory will be helping to improve the teaching of science and mathematics to precollege students by developing educational materials to engage student interest, by taking advantage of the apparent universal attraction of the young to astronomy. SAO also will address and attempt to correct the serious shortage of support personnel that is hampering scientific productivity.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 6 (1)

SCIENCE	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSISTANT SECRETARY FOR SCIENCE														
FEDERAL SALARY & EXPENSES	14	558	12	507	13	757	15	807	17	857	17	882	17	907
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	118	1	100	1	101	1	102	1	102	1	103	1	103
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	48	0	1	0	1	0	1	0	1	0	1	0	1
RESTRICTED	0	107	0	126	2	626	2	626	0	626	0	626	0	626
FEDERAL GRANTS & CONTRACTS	3	308	17	675	17	1128	17	1135	17	1142	17	1149	17	1156
-SUBTOTAL	18	1139	30	1409	33	2613	35	2671	35	2728	35	2761	35	2793
MUSEUM OF NATURAL HISTORY/MUSEUM OF MAN														
FEDERAL SALARY & EXPENSES	510	20281	510	21890	513	22415	540	23888	546	24190	556	24312	568	25012
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	98	0	10	0	10	0	10	0	10	0	10	0	10
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	1	0	1	0	2	0	1	0	1	0	1	0	1
-ALL OTHER	0	369	0	225	0	229	0	225	0	192	0	227	0	218
RESTRICTED	7	2014	7	1722	7	3650	6	2060	6	3135	6	2180	6	1558
FEDERAL GRANTS & CONTRACTS	36	1961	37	1754	36	1546	35	1260	35	1285	35	1310	35	1340
-SUBTOTAL	553	24724	554	25602	556	27852	581	27444	587	28813	597	28040	609	28139
ASTROPHYSICAL OBSERVATORY														
FEDERAL SALARY & EXPENSES	83	8448	83	8966	85	9891	126	11506	146	14247	161	16549	170	18826
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	43	2494	43	2377	43	2467	43	2637	43	2817	43	2997	43	3137
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	2	150	2	150	2	150	2	150	2	150	2	150	2	150
-ALL OTHER	0	358	0	388	0	444	0	470	0	545	0	595	0	645
RESTRICTED	1	309	1	279	1	194	0	120	0	120	0	120	0	120
FEDERAL GRANTS & CONTRACTS	104	12727	102	12058	96	12147	110	18215	110	18800	103	16150	86	10810
-SUBTOTAL	233	24486	231	24218	227	25293	281	33098	301	36679	309	36561	301	33688

Tropical Research Institute (STRI). During the planning period STRI anticipates strengthening its position as the principal center for studies in tropical biology by selective staff additions in the areas of Biochemical Evolution, Aquatic Biology,, Marine Plankton and Soil Ecology. To assist the research efforts additional support staff including technicians, a manuscript preparator, artist/illustrator and launch operator are needed. Educational and conservation activities will continue focusing on the unique features of the Barro Colorado Island Nature Monument. In addition, STRI will continue to make its resources available to organizations of the host country and other institutions to assist in programs of nature conservation and development. An important corollary of this work is the training of third-world students in tropical biology. To effectively support existing programs and enhance new initiatives, facilities modernization will be undertaken during the planning period involving principal STRI sites, Naos, Galeta, Tivoli and Barro Colorado Island. Construction of the new laboratory/conference center is scheduled for completion in late FY 1988, and will require added support staff and operating resources.

Environmental Research Center (SERC). During the planning period, renewed efforts will be made to redefine the goals of the center's two subelements, Rockville, Maryland and Edgewater, Maryland. A new research mission for Rockville operations will depend in part on the resolution of a permanent home for this research group, now housed in a leased laboratory. The Edgewater staff located at a Smithsonian-owned 2600 acre site will continue to emphasize research that addresses physical, chemical and biological interactions in the environment, and the effect of these on landscape communities. Selected staff growth is anticipated for both research staffs following redefinition of program goals. Educational activities will remain stable during the period.

Air and Space Museum (NASM). During the planning period, the Museum anticipates a continuing process of strengthening research programs in the history and technology of aviation and space flight, as well as remote sensing and atmospheric and planetary geologic applications. NASM has expanded its contacts with the research and university communities providing the basis for increased museum-university interaction with the addition of a department for university programs and publication of an annual research report. An important adjunct to the research activities which will also benefit collection management, exhibition and public programs, is the acceleration of the videodisc and digital recording efforts. This will enhance the utility of the collections, as well as allow for rapid accessioning of newly-collected materials. Publications and education programs will continue to be stressed, especially at the higher education level. The new IMAX film, "The Dream is Alive," premiered in June 1985, and is the first motion picture filmed in space. A second IMAX film, in production, "On The Wing," opens in 1986, and is a lyrical depiction of the analogies of natural and mechanical flight. Restaurant facilities are being planned. Planning will be undertaken during this five-year period for a new facility on land at Dulles International Airport.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 6 (2)

SCIENCE	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
TROPICAL RESEARCH INSTITUTE														
FEDERAL SALARY & EXPENSES	87	3550	87	3960	95	4745	126	5715	131	5318	143	7318	151	5774
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	2	174	2	124	2	133	2	137	2	141	2	144	2	149
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	162	0	164	0	168	0	172	0	200	0	215	0	246
-ALL OTHER	0	57	0	47	0	65	0	50	0	57	0	62	0	67
RESTRICTED	0	468	0	339	0	330	0	200	0	180	0	100	0	120
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	89	4411	89	4634	97	5441	128	6274	133	5896	145	7839	153	6356
SMITHSONIAN ENVIRONMENTAL RESEARCH CTR														
FEDERAL SALARY & EXPENSES	68	3402	68	3725	68	3725	75	4280	76	4500	76	4800	76	4380
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	82	1	75	1	84	1	86	1	89	1	91	1	94
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	18	0	21	0	12	0	12	0	14	0	15	0	17
-ALL OTHER	0	104	0	93	0	100	0	105	0	110	0	115	0	120
RESTRICTED	0	25	0	30	0	5	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	8	301	8	382	8	383	2	85	2	90	2	90	0	90
-SUBTOTAL	77	3932	77	4326	77	4309	78	4568	79	4803	79	5111	77	4701
NATIONAL AIR & SPACE MUSEUM														
FEDERAL SALARY & EXPENSES	211	8227	211	8779	211	9029	213	9508	213	9033	216	9138	216	9123
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	8	0	8	0	8	0	8	0	8	0	8	0	8
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	16	1937	16	1912	16	1679	16	1713	16	1840	16	1845	16	1860
-ALL OTHER	13	1271	13	1175	13	1089	13	1110	13	1135	13	1160	13	1185
RESTRICTED	0	289	0	131	0	87	0	148	0	152	0	157	0	162
FEDERAL GRANTS & CONTRACTS	2	137	3	294	3	275	3	260	3	265	3	270	3	280
-SUBTOTAL	242	11869	243	12299	243	12167	245	12747	245	12433	248	12578	248	12618

Zoological Park (NRP). In 1989, the Zoo will celebrate its Centennial, and efforts during this planning period are directed at improving the quality of its programs and facilities. NRP will continue the development of long-term zoological and biomedical research activities at Rock Creek and Front Royal. Emphasis will be placed on research problems related to the captive management of wildlife and conservation biology, including physiology, ecology and behavior. The zoo will continue to study reintroducing animals to their natural habitats. Training programs for developing wildlife conservation techniques in the tropics will focus on wildlife biologists from developing nations. The visiting public will be made more aware of the plight of endangered species through the use of signs, labels, and improved graphics. In FY 1987 construction is scheduled to begin on the NRP Aquatic exhibit. This exhibit built in a phased modular fashion will unite existing aquatic displays around the central theme of adaptations to life in water. The first module will focus on displaying the biological dynamics of a tropical forest stream. The Rock Creek 1972 Master Plan will essentially be completed over the planning period. At the Front Royal Conservation and Research Center, appropriate facilities for primates, large-hoofed stock, animal health programs and maintenance of the Center are being scheduled. Sound preventative maintenance programs will be pursued to include new buildings constructed at Rock Creek Park and Front Royal, Virginia.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 6 (3)

SCIENCE	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
NATIONAL ZOOLOGICAL PARK														
FEDERAL SALARY & EXPENSES	318	11123	318	11869	321	12119	339	13353	349	14093	353	14368	359	14663
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	119	1	112	1	113	1	114	1	115	1	116	1	117
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	141	0	133	0	125	0	127	0	1331	0	1733	0	336
RESTRICTED	0	177	0	111	0	60	0	68	0	71	0	77	0	77
FEDERAL GRANTS & CONTRACTS	0	50	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	319	11610	319	12225	322	12417	340	13662	350	15610	354	16294	360	15193
SCIENCE - SUMMARY														
FEDERAL SALARY & EXPENSES	1291	55589	1289	59696	1306	62681	1434	69057	1478	72238	1522	77367	1557	78685
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	48	3093	48	2806	48	2916	48	3094	48	3282	48	3469	48	3618
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	18	2268	18	2248	18	2011	18	2048	18	2205	18	2226	18	2274
-ALL OTHER	13	2348	13	2062	13	2053	13	2088	13	3371	13	3893	13	2572
RESTRICTED	8	3389	8	2738	10	4952	8	3222	6	4284	6	3260	6	2663
FEDERAL GRANTS & CONTRACTS	153	15484	167	15163	160	15479	167	20955	167	21582	160	18969	141	13676
-TOTAL	1531	82171	1543	84713	1555	90092	1688	100464	1730	106962	1767	109184	1783	103488
Less SAO overhead recovery														
- Program and Administrative		-2260		-2340		-2430		-2600		-2780		-2960		-3100

HISTORY AND ART

Assistant Secretary for History and Art. This Office provides advice and guidance to history and art bureaus in the development of their programs. Opening of the Center for Asian Art and moving the National Museum of African Art to its new quarters on the Mall are of highest priority.

Joseph Henry Facers (JHP). Over the next five years, the staff of this documentary project will continue to collect, transcribe, edit and publish the manuscripts of Joseph Henry, the first Secretary of the Smithsonian Institution.

Museum of American History (MHAH). During this period, the Museum seeks increased resources primarily to expand its research activities and to strengthen its automation capability. The museum plans to establish a Center for the Study of American History, which would combine, in a more structured way, the existing research centers of the Museum, namely the Eisenhower Institute, Afro-American Research Project, Archives Center and the Journal, "Technology and Culture." Such a Center would encourage intramural research, promote new affiliations and provide an appropriate setting for an active program of seminars. The Museum will also work toward establishing systematically, a link between the objects and the information documenting their history, thereby ensuring that its collections fully support the research and educational goals of the Institution. Increased resources also required to make the 4,000 cubic feet of rich documentary holdings in the Archives Center more accessible to researchers, and to create a photographic record of all objects in the collection to buttress security, support research on the collections as well as exhibits and to provide a better basis for responding to public inquiries. The Museum will continue with its ten-year major reinstallation program, opening at least one new show each year and pursue a vigorous schedule of temporary exhibits including an exhibition commemorating the bicentennial of the signing of the United States Constitution and a major exhibition in celebration of Columbus' discovery of America. Establishment and growth of the Native American Program and the Afro-American Research Project will continue through 1991.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
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TABLE 7 (1)

HISTORY & ART	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSISTANT SECRETARY FOR HISTORY & ART														
FEDERAL SALARY & EXPENSES	4	207	4	223	4	223	4	223	4	223	4	223	4	223
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	4	0	4	0	4	0	4	0	4	0	4	0	4
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	2	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	4	213	4	227	4	227	4	227	4	227	4	227	4	227
JOSEPH HENRY PAPERS														
FEDERAL SALARY & EXPENSES	5	220	5	234	5	234	6	279	6	279	6	279	6	279
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	1	0	1	0	1	0	1	0	1	0	1	0	1
RESTRICTED	0	1	0	1	0	1	0	28	0	28	0	29	0	30
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	5	222	5	236	5	236	6	308	6	308	6	309	6	310
MUSEUM OF AMERICAN HISTORY														
FEDERAL SALARY & EXPENSES	297	11155	301	12175	302	12480	315	13423	315	13253	315	13353	315	13353
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	4	370	3	207	2	176	2	180	2	185	2	190	2	195
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	27	0	17	0	17	0	3	0	3	0	4	0	4
-ALL OTHER	1	505	1	339	1	332	0	406	0	418	0	431	0	444
RESTRICTED	0	440	0	719	0	515	0	284	0	293	0	301	0	311
FEDERAL GRANTS & CONTRACTS	1	38	1	9	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	303	12535	306	13466	305	13520	317	14296	317	14152	317	14279	317	14307

Museum of American Art (NMAA). Throughout the period, the Museum plans to strengthen areas of collections management, research, exhibitions, publications, security and general administration through acquisition of computer hardware and integration of the Museum's programs with the Institution's various information systems. Enhancement of NMAA's foremost automated research resources, the Inventory of American Painting, and the establishment of a parallel Inventory of American Sculpture, will strengthen the Museum's position as a national resource for the study of American art. The vital task of preserving and restoring irreplaceable American art works will remain an important program. The Museum plans to continue to strengthen the permanent collection, especially through the acquisition of art photographs. As FY 1991 approaches and functional areas are strengthened, NMAA will concentrate its efforts in scholarly research and its benefits by augmenting the curatorial staff and staff support. In addition, the Museum will continue planning for occupancy of the General Post Office building, which will be shared with the Portrait Gallery and the Archives of American Art in the early 1990's.

Portrait Gallery (NPG). Moderate staff growth and increased resources are needed to strengthen registrar, exhibition, education and public orientation programs and to assure continuous development of the permanent collection. The Gallery will refine its plans its use of space in the Post Office Building; occupancy of the building will necessitate additional resources to strengthen the Gallery's research programs, to improve research facilities in the library and to broaden publication programs to include a series of guides to portions of the permanent collections. The Gallery plans to produce two major exhibitions in commemoration of the Bicentennial of the U.S. Constitution: "The Portrait in America from 1700 to 1776," and the "Portraits of Distinguished American Jurists." To coincide with the opening of the American Jurists show, an interpretive program to encourage the reading and understanding of the U.S. Constitution, to examine the lives of the men who wrote it, and the great legal figures who interpreted it, will be offered to high school classes of gifted and talented students. A symposium and a self-portrait program may also be presented in conjunction with this exhibition. Further, to mark the 20th year of its opening, in 1988 the Portrait Gallery plans a series of events, among them a major symposium on aspects of American biography, a series of public lectures, and a banquet honoring major donors. Moderate increases for acquisitions are anticipated to acquire portraits of prominent people by portraitists of the highest calibre.

Hirshhorn Museum (HMSG). The Museum plans to refine and broaden its collections through acquisitions and deaccessions. Accessioning the 6,000 works in the Hirshhorn Bequest into the permanent collection will be a high priority. Increased resources will be required to conduct comparative studies between the 6,000 works of art in the Bequest and the 7,500 already in its collections, both to reduce any duplication and to establish relationships between the "new" works and the original gift. In addition, biographical research will have to be conducted with respect to artists not already represented in the collection. Although no staff growth is anticipated, increased resources will be required for a major new publication, based upon the permanent collection which by 1991 will number 14,000 objects, and for the initial planning and installation of a major exhibition for the Columbus Quincentennial.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 7 (2)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
HISTORY & ART														
MUSEUM OF AMERICAN ART														
FEDERAL SALARY & EXPENSES	117	4611	118	4970	119	5227	124	5595	125	5625	126	5665	132	5725
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	72	0	45	0	47	0	47	0	47	0	49	0	49
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	9	0	11	0	13	0	13	0	13	0	13	0	13
-ALL OTHER	4	109	4	160	4	164	4	157	4	157	4	157	4	157
RESTRICTED	0	404	0	510	0	144	0	79	0	81	0	84	0	86
FEDERAL GRANTS & CONTRACTS	0	3	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	121	5208	122	5696	123	5595	128	5891	129	5923	130	5968	136	6030
NATIONAL PORTRAIT GALLERY														
FEDERAL SALARY & EXPENSES	82	3342	82	3620	84	3855	85	4811	86	4291	90	4416	95	4521
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	16	0	18	0	18	0	18	0	18	0	19	0	19
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	14	0	16	0	17	0	20	0	20	0	20	0	20
-ALL OTHER	4	124	0	88	0	71	0	80	0	80	0	80	0	80
RESTRICTED	2	231	2	158	0	126	0	150	0	150	0	150	0	150
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	88	3727	84	3900	84	4087	85	5079	86	4559	90	4685	95	4790
HIRSHHORN MUSEUM & SCULPTURE GARDEN														
FEDERAL SALARY & EXPENSES	77	2982	77	3229	77	3271	77	3613	77	3938	77	3938	77	4813
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	13	0	13	0	13	0	13	0	13	0	14	0	14
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	301	0	62	0	66	0	47	0	47	0	47	0	47
RESTRICTED	0	241	0	423	0	197	0	200	0	200	0	200	0	200
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	77	3537	77	3727	77	3547	77	3873	77	4198	77	4199	77	5074

Center for Asian Art (CAA). The Center, which incorporates the programs of the Freer Gallery of Art and the

Arthur M. Sackler Gallery, anticipates significant staff and resource growth in selected areas over the next five years. The Freer plans a strengthened research program in the areas of Indian and South Asian art, and forecasts additional curatorial support in specific areas of specialization to automate collections records. Staff and resources are projected for the Sackler Gallery to provide remedial conservation work to the objects given to the Gallery; to develop its traveling exhibition, research, collections acquisition and publication programs, as well as automation capability. Future year plans include expansion of the education, public orientation and exhibition programs of both the Freer Gallery and the Sackler Gallery. The Freer will enhance its publications program in order to accommodate an expanded exhibition program resulting from increased space acquired after renovation of vacated office space. The present conservation and an expanded Oriental painting accommodate examination and treatment of objects for the Sackler Collection and an expanded Oriental painting restoration program. The Sackler Gallery anticipates publication of one major catalogue each year as well as gallery guides, leaflets and other materials for the public. Preparation of the inaugural exhibition and installation of the galleries are also high priority and resources are incorporated for this purpose. Emphasis will be placed on the development of an aggressive collections acquisition program for both the Freer Gallery of Art and the Sackler Gallery to assure acquisition of the finest quality objects and to search for particular examples that strengthen existing holdings.

Archives of American Art (AAA). The Archives staff will direct attention to the management and care of the

collections by strengthening its collections management operations, eliminating its processing backlog, organizing its collections, fine tuning the collection catalog, taking necessary conservation measures and converting collections management systems from manual to automated. Of immediate concern is the care of the photograph collection, for which curatorial support and conservation services are required. Conservation of 2,500 valuable oral histories is also a high priority and a system for proper handling and storage of the original tapes will be developed. The Archives will continue to plan for the move to the Old Post Office Building, where for the first time all of the Archives' primary documents will be available in one location. Occupancy of the building would require substantial additional increases.

Cooper-Hewitt Museum (CHM). The Museum has started a major fundraising effort in order to undertake and complete

improvements to its physical facilities. Exhibition programming and educational activities will continue during the fundraising cycle, and in off-site locations during any construction activity. Collections management efforts will focus on refinement of collections records, and, when appropriate, relocating the collections for renovation efforts to proceed. Increased federal resources for the care and preservation of the collections and to maintain the physical plant and facilities are anticipated. Additional curatorial and research support to manage graphic and archival collections not appropriately combined with the existing prints and drawings holdings, as well as curatorial support for its architectural and design, and wall coverings collections will be sought.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 7 (3)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
HISTORY & ART														
CENTER FOR ASIAN ART														
FEDERAL SALARY & EXPENSES	38	1585	46	3368	68	4485	72	4685	78	5006	79	5231	79	5231
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	60	1	63	1	67	1	69	1	70	1	72	1	73
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	3	0	3	0	3	0	3	0	3	0	3	0	3
RESTRICTED	22	1496	22	1657	22	1582	22	1600	22	1650	22	1700	22	1750
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	61	3144	69	5091	91	6137	95	6357	101	6729	102	7006	102	7057
ARCHIVES OF AMERICAN ART														
FEDERAL SALARY & EXPENSES	16	735	16	819	17	954	20	1204	23	1289	28	1462	34	1610
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	26	0	4	0	4	0	4	0	4	0	4	0	4
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	17	1115	16	1201	16	1107	19	1119	20	1170	21	1223	22	1278
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	33	1876	32	2024	33	2065	39	2327	43	2463	49	2689	56	2892
COOPER HEWITT MUSEUM														
FEDERAL SALARY & EXPENSES	25	881	26	995	28	1067	31	1229	32	1259	32	1259	42	1479
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	20	721	20	733	20	757	20	770	20	784	20	798	20	812
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	5	636	5	660	5	673	5	692	5	713	5	734	5	756
-ALL OTHER	0	317	0	481	0	364	0	396	0	408	0	420	0	433
RESTRICTED	1	506	1	880	1	1063	1	987	1	1016	1	1046	1	1077
FEDERAL GRANTS & CONTRACTS	0	155	0	50	0	50	0	50	0	50	0	50	0	50
-SUBTOTAL	51	3216	52	3799	54	3974	57	4124	58	4230	58	4307	68	4607

Museum of African Art (NMAfA). During the planning period, NMAfA will have completed the move to the Quadrangle and must begin to assume in full its unique national role as the only United States museum devoted solely to the collection, study and exhibition of African Art. Increased resources are necessary not only to strengthen each of its existing activities, but to initiate new programs that will make a substantive contribution nationally and internationally to the disciplines of African art studies. The Museum must begin a scholarly publications program that will include books as a result of scholarly research, substantive exhibition publications, a collection series bulletin, a semi-annual periodical, and a photographic archives newsletter. In addition, a conservation program of examination, scientific testing and preservation of collection material will be developed and the conservation staff will publish its findings, thereby addressing the very specialized area of authentication and critical public need for information about the composition and conservation of African art. Special emphasis will be placed also on the preservation of two existing collections of approximately 1,000 lantern slides and glass negatives comprising a rare and early archive (1902-23, 1906-20) of African people and villages in the Museum's Photographic Archives. This project will continue in future years, as early photographic material of this kind enters the archive collection, as well as the acquisition of more recent fieldwork photographs by U.S. scholars.

Anacostia Neighborhood Museum (ANM). Completion of the annex next to the present Exhibits Laboratory at Fort Stanton is the Museum's highest priority. The construction of this annex will permit the Museum to vacate its leased building and will allow consolidation of activities and development of more varied and vigorous program for the public. Planning for a new and modern museum building will also commence over the period. Long-range plans include closer collaboration with other Smithsonian history and art museums involving joint research, systematic information collection and retrieval, education, collection and curation programs. Further, the Museum will continue to plan and develop research and exhibition projects that support in-house and traveling exhibitions and to locate and interpret historical documents, artifacts and memorabilia that are germane to Afro-American studies and ethnohistory for use in museum exhibitions.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 7 (4)

HISTORY & ART	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
MUSEUM OF AFRICAN ART														
FEDERAL SALARY & EXPENSES	32	1233	40	2945	55	3333	54	3738	56	3773	56	3773	56	3773
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	2	636	2	55	1	84	1	38	1	39	1	39	1	40
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	3	0	4	0	3	0	0	0	0	0	0	0	0
-ALL OTHER	0	11	0	8	0	5	0	7	0	7	0	7	0	7
RESTRICTED	0	73	0	721	0	1188	0	540	0	275	0	275	0	275
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	34	1956	42	3733	56	4613	55	4323	57	4094	57	4094	57	4095
ANACOSTIA NEIGHBORHOOD MUSEUM														
FEDERAL SALARY & EXPENSES	19	855	19	914	19	914	19	974	21	984	21	1014	24	1104
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	1	40	1	41	1	41	1	42	1	43	1	44	1	45
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	1	0	1	0	0	0	0	0	0	0	0
RESTRICTED	0	1	0	1	0	1	0	1	0	1	0	1	0	1
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	20	896	20	957	20	957	20	1017	22	1028	22	1059	25	1150
HISTORY & ART-SUMMARY														
FEDERAL SALARY & EXPENSES	712	27806	734	33492	778	36043	807	39774	823	39920	834	40613	864	42111
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	28	1958	27	1183	25	1211	25	1185	25	1207	25	1233	25	1255
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	5	689	5	708	5	723	5	728	5	749	5	771	5	793
-ALL OTHER	9	1373	5	1143	5	1007	4	1097	4	1121	4	1146	4	1172
RESTRICTED	42	4508	41	6271	39	5924	42	4988	43	4864	44	5009	45	5158
FEDERAL GRANTS & CONTRACTS	1	196	1	59	0	50	0	50	0	50	0	50	0	50
-TOTAL	797	36530	813	42856	852	44958	883	47822	900	47911	912	48822	943	50539

PUBLIC SERVICE

Assistant Secretary for Public Service. This office provides administrative oversight and guidance to the Institution's Public Service programs. Overall goals over the next five years are to broaden educational outreach initiatives and national and international constituencies.

Office of Telecommunications (OTC). In FY 1986, the Office plans to occupy facilities in the Museum of American History to enable OTC to better fill the demands received from bureaus for audiovisual services. The completion of the Quadrangle International Center and the launching of its programs will bring an increase in such requests. The Office will also proceed with development and possible production of its children's television series, designed for ages 9-12. Other projects planned or under consideration for the period include programs for young citizens relating to the Constitution Bicentennial in 1987, the application of teleconferencing to symposia and scientific meetings involving the Smithsonian, a potential radio series featuring a wide variety of American music, and major film, video or radio programs marking the Columbus Quincentennial in 1992. In addition, the Office will explore video projects designed to increase the Smithsonian's presence in the educational and home video markets.

Visitor Information and Associates' Reception Center (VIARC). Information and reception services for the public and Associate members of the Institution are projected to increase significantly with the phased opening of the new Smithsonian Information Center in the Castle, the opening of the Quadrangle, and the implementation of the exterior graphic information system. Volunteer recruitment and training will be escalated to provide the appropriate level of staffing at museum and telephone information desks and in the new Information Center. Intern registration will increase as the Institution expands its activities. Efforts will increase to promote previsit education (through the tour and travel industry) and memberships in the Smithsonian Associates.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 8 (1)

PUBLIC SERVICE	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSISTANT SECRETARY FOR PUBLIC SERVICE														
FEDERAL SALARY & EXPENSES	4	226	4	229	4	229	4	229	4	229	4	229	4	229
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	3	127	3	106	3	110	2	79	2	81	2	83	2	85
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	1	299	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	71	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	8	723	7	335	7	339	6	308	6	310	6	312	6	314
OFFICE OF TELECOMMUNICATIONS														
FEDERAL SALARY & EXPENSES	5	211	5	226	5	226	5	226	5	226	5	226	5	226
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	9	525	9	557	9	590	9	657	10	735	10	774	10	798
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	42	0	57	0	58	0	60	0	74	0	83	0	95
-ALL OTHER	0	90	0	100	0	58	0	0	0	0	0	0	0	0
RESTRICTED	0	2	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	14	870	14	940	14	932	14	943	15	1035	15	1083	15	1119
VISITOR'S INFORMATION & RECEPTION CENTER														
FEDERAL SALARY & EXPENSES	2	157	2	167	2	167	2	167	2	167	2	167	2	167
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	18	672	22	731	23	783	24	807	24	832	24	858	24	885
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	1	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	20	829	24	899	25	950	26	974	26	999	26	1025	26	1052

Office of Public Affairs. For the third consecutive year, the Office is conducting in FY 1986 a program to increase minority visits to the Institution and minority participation in Smithsonian activities; radio, printed materials and televised public service announcements are part of the effort. The Office is also undertaking a research project aimed at exploring the feasibility of producing a Spanish-language version of the Smithsonian News Service, a feature story service produced by OPA and distributed to more than 1,557 newspapers nationwide. OPA plans to continue to cooperate with the Office of Elementary and Secondary Education in exploring the production of a periodical designed for junior high school students to be distributed to various school systems. Media materials on Smithsonian research will continue to be produced. Electronic links between the central Office and various individual bureau public information offices will be increased in order to speed the processing of news releases and other materials. Efforts will be intensified to increase public awareness of Smithsonian performances and cultural events. Intensive planning for the opening of the Quadrangle facilities will be inaugurated with the production of a new general information brochure and other materials.

Smithsonian Institution Press (SIP). Long-range plans call for gradual growth of the university press division. Emphasis will be placed on scholarly publications with major expansion in anthropology, music, art and art history, American studies, and museum management. Careful attention will continue to be given to electronic publishing (data base retrieval) and video cassettes/discs. The direct mail book division's goals are to continue to publish books of general interest to primarily Smithsonian Associates that are well-written and carefully researched. The records division will continue to produce one or two popular record packages a year. Sales of Smithsonian Collection recordings are expected to increase somewhat.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 8 (2)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
PUBLIC SERVICE														
OFFICE OF PUBLIC AFFAIRS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	12	583	12	620	12	703	12	703	12	703	12	703	12	703
-PROGRAM & ADMINISTRATIVE	4	330	4	378	4	404	4	419	4	435	4	451	4	468
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	6	0	1	0	1	0	1	0	1	0	1	0	1
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- SUBTOTAL	16	919	16	999	16	1108	16	1123	16	1139	16	1155	16	1172
SMITHSONIAN INSTITUTION PRESS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	29	1079	29	1158	29	1158	29	1158	29	1158	29	1158	29	1158
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	35	12915	35	11975	37	13100	37	14230	37	15340	38	16480	38	17235
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	50	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	58	0	11	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- SUBTOTAL	64	14102	64	13144	66	14258	66	15388	66	16498	67	17638	67	18393
PUBLIC SERVICE - SUMMARY														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	52	2256	52	2400	52	2483	52	2483	52	2483	52	2483	52	2483
-PROGRAM & ADMINISTRATIVE	34	1654	38	1772	39	1887	39	1962	40	2083	40	2166	40	2236
-AUXILIARY ACTIVITY	35	12915	35	11975	37	13100	37	14230	37	15340	38	16480	38	17235
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	42	0	57	0	58	0	60	0	74	0	83	0	95
-ALL OTHER	1	445	0	102	0	59	0	1	0	1	0	1	0	1
RESTRICTED	0	131	0	11	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- TOTAL	122	17443	125	16317	128	17587	128	18736	129	19981	130	21213	130	22050

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MUSEUM PROGRAMS

Assistant Secretary for Museum Programs. The Office maintains close working relationships with national and international museological organizations. The Office continues to review utilization of resources available to museum programs to assure the most effective application to requirements.

Office of Museum Programs (OMP). During the planning period, the Office of Museum Programs intends to strengthen museology training and counseling activities and its audiovisual and publication program. The number of museum training programs for Smithsonian staff will be expanded, as will the frequency of regionally based and cosponsored workshops. The Office will place increased emphasis on activities serving minority needs within the museum profession.

Office of the Registrar (OR). This Office is responsible for Institutional development, oversight and coordination of policies and practices related to the management of collections, including accountability procedures and information management techniques for all objects and specimens held by the Smithsonian. Inventory, one aspect of collections management touching on all these matters, has been and will continue to be an important concern throughout the planning period because all bureaus are required to conduct cyclical inventories now that their initial 1978-83 baseline inventories have been completed. A related concern will be the enhancement and updating of collection records to improve knowledge about and access to the collections. In addition, training programs will be developed to support Smithsonian personnel working in collection registration and related functions. The Office also will continue to manage the affairs of the Smithsonian's Registrarial Council and will develop collections management information for dissemination through this group.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 9 (1)

MUSEUM PROGRAMS	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSISTANT SECRETARY FOR MUSEUM PROGRAMS														
FEDERAL SALARY & EXPENSES	7	347	7	372	7	372	7	372	7	372	7	372	7	372
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	11	0	9	0	9	0	9	0	9	0	9	0	9
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	7	358	7	381	7	381	7	381	7	381	7	381	7	381
OFFICE OF MUSEUM PROGRAMS														
FEDERAL SALARY & EXPENSES	12	349	12	378	12	378	14	708	14	718	14	718	14	723
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	6	0	6	0	9	0	10	0	10	0	11	0	11
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	60	0	48	0	47	0	70	0	75	0	80	0	85
-ALL OTHER	0	31	0	5	0	6	0	0	0	0	0	0	0	0
RESTRICTED	3	485	3	483	3	437	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	2	0	1	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	15	933	15	921	15	877	14	788	14	803	14	809	14	819
OFFICE OF THE REGISTRAR														
FEDERAL SALARY & EXPENSES	2	94	2	102	2	102	4	156	4	156	4	156	4	156
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	2	94	2	102	2	102	4	156	4	156	4	156	4	156

Conservation Analytical Laboratory (CAL). Activities are undergoing growth over the

next several years as its expanded conservation, scientific, and information staffs activate and utilize new facilities at the Museum Support Center. Equipment and work areas allow for more complete treatment of several classes of materials, and modern instrumentation permits a wider range of analysis and research to provide answers to pressing conservation questions. Research will also provide a technology base for new work in conservation techniques, for understanding mechanisms which govern deterioration processes, and for control of environmental conditions for museum objects. The range of objects subject to archaeometric research will be extended and the data bases produced by this research will be enlarged dramatically. Existing archaeometric data currently scattered in laboratories throughout the country are being brought together in a new program, the Smithsonian Archaeometric Research Collections and Records (SARCAR). All of these staff, laboratory and information resources will be available for the development of the conservation training program, for which activities are scheduled to begin in 1986. Acquisition of basic new equipment for the CAL laboratories and training areas is planned to be completed at the MSC in FY 1986.

Smithsonian Institution Libraries (SIL). The principal objective of the Libraries over the planning period is to build a minimum research collection to meet the needs of SI scholars, to identify and describe 400,000 titles not included in the computer database, to begin treating preservation problems present in approximately 90% of the collections by microfilming and other techniques and to further plan for a central, permanent facility in which to consolidate the general reference, special and rare collections, central acquisitions and processing services and SIL administration. The SIL will continue to directly support the wide fields of SI scholarly research, public, and administrative programs through its system of branches located in Washington, Cambridge, New York City, and Panama; its interlibrary loan services; and its online data services. Requirements for establishing library services in the Quadrangle are contained in Libraries projections and are aggregated for display purposes in Table 5.

Office of Exhibits Central (OEC). The Office will continue to produce, install, and maintain exhibitions and to provide other specialized services to the bureaus of the Institution. Highly specialized OEC capabilities include design and editorial services, freeze-dry taxidermy and all types of model making. In support of the Office of Museum Programs, the OEC provides workshop training in exhibition media and techniques for museum professionals throughout the world. Over the course of this planning period obsolete equipment, such as freeze-dry chambers and storage freezers, will be replaced with more reliable and technologically current machinery. Some support for Quadrangle related exhibition programs is planned for future years and is contained in the OEC trends below and also appear in Table 5.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 9 (2)

MUSEUM PROGRAMS	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
CONSERVATION ANALYTICAL LABORATORY														
FEDERAL SALARY & EXPENSES	36	1762	40	2192	42	2384	52	2735	56	3002	60	3250	60	3276
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	1	0	1	0	1	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	36	1763	40	2193	42	2385	52	2735	56	3002	60	3250	60	3276
SMITHSONIAN INSTITUTION LIBRARIES														
FEDERAL SALARY & EXPENSES	94	4233	97	4833	99	5200	101	6398	103	6122	105	6170	105	6170
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	9	309	10	335	10	351	10	361	10	372	10	383	10	395
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	113	0	109	0	2	0	0	0	0	0	0	0	0
RESTRICTED	0	142	0	10	0	10	0	5	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	103	4797	107	5287	109	5563	111	6764	113	6494	115	6553	115	6565
OFFICE OF EXHIBITS CENTRAL														
FEDERAL SALARY & EXPENSES	42	1505	43	1702	46	1794	48	1925	51	2001	55	2113	55	2113
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	53	0	32	0	2	0	2	0	3	0	2	0	3
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	42	1558	43	1734	46	1796	48	1927	51	2004	55	2115	55	2116

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Traveling Exhibition Service (SITES). SITES currently occupies space in the Arts and Industries building but will be moving to Quadrangle exhibition and workshop areas when that facility is completed. Resources for Quadrangle and other support including Quincentennial research for FY 1986-1990 are in the projections below and also appear in Table 5. In FY 1986, there will be an increase of education activities associated with SITES exhibitions involving schools, multi-media workshops and workshops involving disciplines and new areas of education technology. Over the planning period the international exhibition program along with continued production and circulation of high quality exhibitions will be emphasized.

Smithsonian Archives (SIA). The Archives will extend archival and records management programs to all records-producing offices of the Institution, resulting in substantial increases in volume and diversity of records transferred into the Archives during the planning period. The photographic collections survey will continue and produce finder's guides and a central database. Phased improvements in micrographic capability and oral history capability are planned for this period, and development of Archives capability to automate its internal collections management and handle automated, machine-readable records from operating offices will be developed. Alternatives to present space will be examined with a view to accommodate increasing volumes of materials.

National Museum Act (NMA). The Act is a technical assistance program that makes grants for projects that will enhance the quality of museum operations. Through these grants the Act supports professional training in museum activities, research for the improvement of museum methods, and the dissemination of technical information to the profession through publication and workshops or seminars. Many NMA projects involve advanced training in the field of conservation and scientific research that will result in new techniques for conservators and better methods for the care and preservation of objects. Research projects funded by the National Museum Act, especially in conservation, have generally not received support from other funding sources. The Program plans to continue its activities at the full level of authorized funding through FY 1990, at which point increased authorization and funding are projected.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 9 (3)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
MUSEUM PROGRAMS														
TRAVELING EXHIBITION SERVICE														
FEDERAL SALARY & EXPENSES	7	337	10	476	15	601	17	661	19	761	20	811	20	811
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	23	1485	31	1840	33	2005	34	2100	36	2190	37	2275	38	2365
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	3	272	0	2	0	0	0	50	0	50	0	50	0	50
-BUREAU ACTIVITY	1	905	1	1300	1	560	2	1000	0	1000	0	1000	0	1000
-ALL OTHER	0	12	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED														
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	34	3011	42	3618	49	3166	53	3811	55	4001	57	4136	58	4226
SMITHSONIAN ARCHIVES														
FEDERAL SALARY & EXPENSES	15	519	15	556	15	668	19	866	19	866	19	816	19	816
UNRESTRICTED GENERAL	5	148	6	192	7	229	7	236	7	243	3	115	3	118
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	1	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	20	668	21	748	22	897	26	1102	26	1109	22	931	22	934
NATIONAL MUSEUM ACT														
FEDERAL SALARY & EXPENSES	3	774	3	793	3	793	3	1000	3	1000	3	1000	3	1500
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	3	774	3	793	3	793	3	1000	3	1000	3	1000	3	1500

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 9 : (4)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
MUSEUM PRDGRAMS														
MUSEUM PRDGRAMS-SUMMARY														
FEDERAL SALARY & EXPENSES	218	9920	229	11404	241	12292	265	14821	276	14998	287	15406	287	15937
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	14	474	16	542	17	598	17	616	17	634	13	518	13	533
-AUXILIARY ACTIVITY	23	1485	31	1840	33	2005	34	2100	36	2190	37	2275	38	2365
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	60	0	48	0	47	0	70	0	75	0	80	0	85
-ALL DTHR	3	470	0	149	0	11	0	52	0	53	0	52	0	53
RESTRICTED	4	1533	4	1793	4	1007	2	1005	0	1000	0	1000	0	1000
FEDERAL GRANTS & CONTRACTS	0	14	0	1	0	0	0	0	0	0	0	0	0	0
-TOTAL	262	13956	280	15777	295	15960	318	18664	329	18950	337	19331	338	19973

DIRECTORATE OF INTERNATIONAL ACTIVITIES

Directorate of International Activities. Established on October 1, 1984, the Directorate consists of the International Center to be located in the Quadrangle, the Office of Service and Protocol (formerly the Office of International Activities) and the Office of Publications Exchange (formerly the International Exchange Service). Responsibilities for managing the Institution's Foreign Currency Program are being transferred to the Directorate from the Office of Fellowships and Grants effective October 1, 1985. The Directorate was created to monitor, coordinate and enhance the Smithsonian-wide array of work in the international field, and to plan, design and conduct programs of the International Center. The Directorate also is responsible for the pan-Institutional coordination and planning of the 1992 Commemoration of the Columbus Quincentenary. Commencing in 1987 and continuing through 1993, this program will require increasingly substantial levels of funding. Foreign Currency funds are not considered as part of the Institution's federal operating appropriation, and are not included in the table below; however, projections call for funding levels of \$2,000,000 equivalent in FY 1987 to continue the grant program in Pakistan, Burma, Guinea and Poland; \$2,000,000 equivalent for the grant program is projected for FY 1988 and out years.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 10 (1)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
DIRECTORATE FOR INTERNATIONAL ACTIVITIES														
DIRECTORATE FOR INTERNATIONAL ACTIVITIES														
FEDERAL SALARY & EXPENSES	9	319	10	605	11	961	11	1156	12	1746	12	2796	13	2796
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	9	435	11	618	11	829	11	752	11	772	11	793	11	815
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	100	0	150	0	150	0	200	0	200	0	250
RESTRICTED	0	0	0	210	0	327	0	300	0	300	0	300	0	300
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	18	754	21	1533	22	2267	22	2358	23	3018	23	4089	24	4161

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SPECIAL PROGRAMS

American Studies and Folklife Programs (OAMerS and OFF). During FY 1986-91 the Office of Folklife Programs will continue to expand the Smithsonian Folklife Studies Series with publication of monographs/films based on scholarly research of folkways still practiced or in living memory in a variety of traditional cultures; publish papers and reviews; organize living presentations within exhibitions mounted by other bureaus; and plan and produce the annual Festival of American Folklife. Activities under consideration for future year festivals include programs on occupational folklife and on Black American and Native American cultures. The festival will continue to present the diverse cultures and traditions found in the United States, as well as programs representing ethnic groups worldwide. The Office of American Studies will continue to sponsor a graduate program in American material culture in cooperation with various universities in and outside of the Washington, D.C. area; the activities and resources associated with this program are not expected to change in a major fashion.

Office of Fellowships and Grants (OFG). The Office will continue to administer the Institution's fellowship programs and visiting academic appointments and internships. Since 1979, most of these activities have been supported with nonappropriated trust funds. Approximately 85 fellowships and 30 other awards are offered each year. The funding projected will allow for an approximate thirty percent growth in the number of awards and appropriate increases in the stipends. Increases are also planned for the Regent's Fellowship program (shown separately below). In addition, through the Office the Institution provides opportunities for minority students via the cooperative education and internship program; this effort will grow as appropriate funding materializes. A modest program to support visiting scholars (including third world participants) and a symposium fund will be expanded over this period.

Office of Smithsonian Symposia and Seminars (OSSS). The Office of Smithsonian Symposia and Seminars will continue to design public service educational programs combining the increase of knowledge with the diffusion of knowledge during the long term future. Its interdisciplinary approach involves the search for significant themes, commemorations, issues, or problems requiring attention of a broad variety of specialties in the humanities and sciences. Through symposia, seminars, and books it serves as a bridge within academia on the one hand, and on the other a link between academics, the general public, and youth preparing for the duties of citizenship. Three major projects will require most of the Office's resources in the next decade: (1) encouraging Smithsonian cooperation with research centers, colleges, and universities to improve Americans' understanding of other societies and cultures, especially in the context of the Smithsonian's new Quadrangle International Center; (2) serving as part of a national and international network of educators and other specialists to help commemorate the two hundredth anniversary of the U.S. Constitution and Bill of Rights; and (3) designing international symposia and seminars for the five hundredth anniversary of the Columbian expedition to the New World. In addition, the Office will administer special projects of paninstitutional interest.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 11 (1)

SPECIAL PROGRAMS	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
AMERICAN STUDIES & FOLKLIFE PROGRAM														
FEDERAL SALARY & EXPENSES	8	681	8	731	8	731	8	731	8	731	8	731	8	731
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	13	550	13	642	13	655	14	674	14	694	14	715	14	736
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	5	0	5	0	5	0	5	0	5	0	5	0	5
-ALL OTHER	0	429	0	35	0	35	0	40	0	40	0	40	0	40
RESTRICTED	0	375	0	379	0	214	0	200	0	200	0	200	0	200
FEDERAL GRANTS & CONTRACTS	0	43	0	592	0	852	0	850	0	850	0	850	0	850
-SUBTOTAL	21	2083	21	2384	21	2492	22	2500	22	2520	22	2541	22	2562
OFFICE OF FELLOWSHIPS & GRANTS														
FEDERAL SALARY & EXPENSES	11	327	11	2351	11	2351	11	2351	11	2351	11	2351	11	2351
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	4	138	4	120	4	129	4	133	4	137	4	141	4	145
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	1461	0	1732	0	2051	0	2169	0	2634	0	2959	0	3269
RESTRICTED	0	22	0	75	0	66	0	15	0	15	0	15	0	15
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	15	1948	15	4278	15	4597	15	4668	15	5137	15	5466	15	5780
OFFICE OF SYMPOSIA & SEMINARS														
FEDERAL SALARY & EXPENSES	3	97	3	103	3	203	3	123	3	123	3	133	3	153
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	2	137	2	148	2	213	2	156	2	160	2	165	2	170
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	56	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	61	0	148	0	100	0	50	0	60	0	65	0	75
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	5	351	5	399	5	516	5	329	5	343	5	363	5	398

Office of Elementary and Secondary Education (OESE). Growth in readership of the publication Art to Zoo is projected but can be accommodated within existing federal resources. Some additional responsibilities are projected for the Office over the planning period, including liaison with the National Academy of Sciences on a new initiative in science and math education. Further explanation of this project and its projected resource requirements is included under the Assistant Secretary for Science section. On the trust fund side, a number of experimental educational materials kits have been developed and more such units may be developed on various art, history, and science subjects based on Smithsonian collections. These kits will be produced with the support of outside funding in cooperation with the Smithsonian Institution Press. Also in its experimental stages is a periodical based on Smithsonian research and collections and directed to young adolescents in schools across the nation. This is as a joint project with the Institution's Office of Public Affairs. Regional teacher oriented workshops, production of learning materials for hospitalized children, activities for disabled visitors, summer intern programs for talented young people and exceptional teachers from across the country, and a program to introduce minority high school students to career opportunities at the Smithsonian are all expected to be in place and functioning well over the planning period.

International Environmental Science Program (IESP). Over the five-year planning period, increasing attention will be paid to studies in tropical and subtropical regions where new knowledge is necessary to understand the complexities of biological diversity. Man-related activities, coupled with natural processes are causing severe disruptions to these ecosystems which serve as centers for important sources of food, pharmaceuticals and other products for man. The destruction of these ecosystems must be studied in order to develop a means to retard biotic degradation. During FY 1987-1991 additional sites are contemplated for study in the Neotropics and old world tropics to enhance efforts in biological diversity.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 11 (2)

SPECIAL PROGRAMS	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
DFC OF ELEMENTARY & SECONDARY EDUCATION														
FEDERAL SALARY & EXPENSES	7	316	7	339	7	375	7	364	7	364	7	364	7	364
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	2	122	3	175	3	197	3	202	3	213	3	218	3	225
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	4	0	4	0	1	0	1	0	1	0	1	0	1
-ALL OTHER	0	1	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	27	0	31	0	30	0	100	0	150	0	200	0	200
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	9	470	10	549	10	603	10	667	10	728	10	783	10	790
REGENT'S FELLOWSHIPS														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	54	0	140	0	140	0	150	0	175	0	200	0	200
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	0	54	0	140	0	140	0	150	0	175	0	200	0	200
INTERNAT'L ENVIRONMENTAL SCIENCE PROGRAM														
FEDERAL SALARY & EXPENSES	13	702	13	747	13	747	21	1330	22	1470	22	1480	22	1491
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	13	702	13	747	13	747	21	1330	22	1470	22	1480	22	1491

Collection Management/Inventory Program. These funds have been used, beginning in FY 1979 with appropriation of \$500,000, to initiate and carry through with the first complete inventory in the Institution's history. Approximately \$1,200,000 is being requested for FY 1987 to continue the program and to keep abreast of the current inventory workload. The resources will be used for reconciliation of records, maintaining a stable amount of effort to keep abreast of documenting incoming objects, and automating various collection record systems throughout the Institution.

Collection Acquisition, Scholarly Studies, Education Program and Smithsonian Awards (CAHE). These trust funds support a variety of institutional activities such as purchase of special collections, workshops for minorities and the handicapped, educational conference and products, and meritorious research projects. Some increase in funding is projected if the Institution's revenue generating activities continue to perform in a good fashion.

Museum Support Center (MSC). Trends portrayed for FY 1987 through FY 1991 reflect plans to meet the full operating and equipping requirements (exclusive of utilities) for the Center. Over the period, about \$23,000,000 are planned for investing in equipment requirements. Annual operating funds for administration and maintenance of the MSC are projected at about \$1,000,000 annually and costs of about \$2,500,000 to support the physical transfer of collections from museums are projected over the planning period. Funds for operational costs of program units which are involved in MSC are included in the appropriate base of the units. Utilities are included in the Facilities Services chapter, along with security, building engineers, and other requirements.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 11 (3)

SPECIAL PROGRAMS	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
COLLECTIONS MANAGEMENT/INVENTORY PROGRAM														
FEDERAL SALARY & EXPENSES	38	850	38	1147	39	1270	39	1270	39	1270	39	1270	39	1270
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	38	850	38	1147	39	1270	39	1270	39	1270	39	1270	39	1270
CARE, RES. DPPRT. . SMITHSON AWARDS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	3185	0	3300	0	3155	0	4450	0	5000	0	5000	0	5100
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	0	3185	0	3300	0	3155	0	4450	0	5000	0	5000	0	5100
MUSEUM SUPPORT CENTER EQUIP./OPERATIONS														
FEDERAL SALARY & EXPENSES	35	4740	38	5060	74	6623	83	8540	55	3900	44	9385	40	2085
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	250	0	151	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	35	4990	38	5211	74	6623	83	8540	55	3900	44	9385	40	2085

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Special Exhibitions Program. Projections of trust support are based on the continued good performance of the Institution's business, auxiliary, and Associates programs. This is a special Regents' program for funding meritorious exhibit proposals from bureaus which cannot be accommodated within available federal base resources. These efforts also may be partially funded with gifts and grants from outside donors.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 11 (4)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
SPECIAL PROGRAMS														
SPECIAL EXHIBITION PROGRAM														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	3200	0	3000	0	3500	0	3500	0	3500	0	4500	0	4500
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	0	3200	0	3000	0	3500	0	3500	0	3500	0	4500	0	4500
JOHN F KENNEDY CENTER TRUSTEE GRANTS														
FEDERAL SALARY & EXPENSES	0	686	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	0	686	0	0	0	0	0	0	0	0	0	0	0	0
SPECIAL PROGRAMS-SUMMARY														
FEDERAL SALARY & EXPENSES	115	8399	118	10478	155	12300	172	14709	145	10209	134	15714	130	8445
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	21	947	22	1085	22	1194	23	1165	23	1204	23	1239	23	1276
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	9	0	9	0	6	0	6	0	6	0	6	0	6
-ALL OTHER	0	8636	0	8358	0	8881	0	10309	0	11349	0	12699	0	13109
RESTRICTED	0	485	0	633	0	410	0	365	0	425	0	480	0	490
FEDERAL GRANTS & CONTRACTS	0	43	0	592	0	852	0	850	0	850	0	850	0	850
-TOTAL	136	18519	140	21155	177	23643	195	27404	168	24043	157	30988	153	24176

ASSOCIATE PROGRAMS

Office of Membership and Development (OMD). The Office serves as the focus for fund raising activities of the Institution and oversees the operations of the National and Resident Associate Programs. Plans call for the development of a general fund raising brochure and more direct solicitation from foundation, corporations, and individuals, and renewed emphasis upon planned giving for individuals.

Smithsonian Magazine. Expenditures are expected to increase substantially due to continued cost increases associated with publication. Demand should remain strong, and Magazine will continue to operate and produce a surplus for institutional program activities from trust revenues generated through membership and advertising sales.

National Associate Program (SNAP). Continued expansion is forecasted for contributing membership, travel, and lecture and seminar programs. The Program will be moving to the Quadrangle in FY 1986.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 12 (1)

ASSOCIATES PROGRAMS	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
OFFICE OF MEMBERSHIP & DEVELOPMENT														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	15	900	17	1004	19	1000	20	948	20	976	20	1006	20	1036
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	10	0	10	0	12	0	13	0	14	0	14	0	15
-BUREAU ACTIVITY	0	22	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	12	0	25	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	15	944	17	1039	19	1012	20	961	20	990	20	1020	20	1051
SMITHSONIAN MAGAZINE														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	91	53275	91	60765	93	63930	93	64940	94	68900	95	73130	96	77925
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	91	53275	91	60765	93	63930	93	64940	94	68900	95	73130	96	77925
NATIONAL ASSOCIATES PROGRAM														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	30	11995	32	14385	32	14815	38	15255	39	15710	40	16180	41	16665
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-BUREAU ACTIVITY	0	39	0	40	0	43	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	30	12034	32	14425	32	14858	38	15255	39	15710	40	16180	41	16665

Resident Associate Program (SRAP). Plans call for strengthening of performing arts programs, expanding membership and broadening its composition, and developing new program offerings directed to specialized audiences. The Program will be headquartered in the Quadrangle in FY 1986.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 12 (2)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ASSOCIATES PROGRAMS														
RESIDENT ASSOCIATES PROGRAM														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	47	3470	51	3700	54	3890	55	4060	56	4235	57	4420	58	4610
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	2	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	11	0	7	0	2	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	4	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	47	3487	51	3707	54	3892	55	4060	56	4235	57	4420	58	4610
ASSOCIATES PROGRAMS-SUMMARY														
FEDERAL SALARY & EXPENSES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED GENERAL	15	900	17	1004	19	1000	20	948	20	976	20	1006	20	1036
-PROGRAM & ADMINISTRATIVE	168	68740	174	78850	179	82635	186	84255	189	88845	192	93730	195	99200
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	10	0	10	0	12	0	13	0	14	0	14	0	15
-ALL OTHER	0	63	0	40	0	43	0	0	0	0	0	0	0	0
RESTRICTED	0	23	0	32	0	2	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	4	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	183	69740	191	79936	198	83692	206	85216	209	89835	212	94750	215	100251

BUSINESS MANAGEMENT

Business Management Office/Product Licensing. A reinvigorated Product Development and Licensing program will emphasize educational toys and other products which will increase public knowledge of Smithsonian collections and activities.

Museum Shops. An expanded shop is planned in the National Museum of Natural History to improve customer services and to enhance merchandise presentation. The Museum Shop in the National Museum of African Art will move to the new Quadrangle facility. Overall, the Museum Shops will continue to exploit technological advances in retail management and will aim for increasing professionalism in their operations.

Mail Order Division. The Mail Order Division will continue to publish three main catalogues each year: Fall, Spring, and Summer. These may be supplemented by specialized catalogues designed to appeal to particular target markets and by advertising products in selected magazines. List segmentation will continue and will become increasingly refined. The fulfillment facility will likely reach capacity by 1987. Its computer has been upgraded to handle the growth in business that is anticipated.

SMITHSONIAN INSTITUTION

APPLICATION OF OPERATING FUNDS

FY 1985 AND PROJECTED THROUGH 1991

TABLE 13 (1)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
BUSINESS MANAGEMENT														
BUSINESS MANAGEMENT OFFICE														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	8	370	8	530	8	585	8	645	8	710	8	780	8	860
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	8	370	8	530	8	585	8	645	8	710	8	780	8	860
MUSEUM SHOPS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	195	15260	199	16315	204	17100	218	18500	227	19400	236	20300	245	21200
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	195	15260	199	16315	204	17100	218	18500	227	19400	236	20300	245	21200
MAIL ORDER DIVISION														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-PROGRAM & ADMINISTRATIVE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-AUXILIARY ACTIVITY	55	13045	68	14450	84	16770	94	18550	104	20550	114	22950	124	25460
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESTRICTED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-SUBTOTAL	55	13045	68	14450	84	16770	94	18550	104	20550	114	22950	124	25460

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Concessions. Construction of a restaurant addition to the National Air and Space Museum to meet public needs is planned to commence in 1986 with renovation of the restaurant facility in the American History and Natural History buildings also planned over the next several years. Other eating facilities will also be upgraded. New concessions contracts are expected to be negotiated in FY 1986.

Parking. No changes are foreseen in the operation of Smithsonian parking facilities other than periodic rate increases if necessary.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 13 (2)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
BUSINESS MANAGEMENT														
CONCESSIONS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE														
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY														
-ALL OTHER														
RESTRICTED														
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	1	965	1	280	1	295	1	310	1	330	1	340	1	360
PARKING OPERATIONS														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE														
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY														
-ALL OTHER														
RESTRICTED														
FEDERAL GRANTS & CONTRACTS														
-SUBTOTAL	17	540	17	570	17	600	17	630	17	660	17	695	17	730
BUSINESS MANAGEMENT - SUMMARY														
FEDERAL SALARY & EXPENSES														
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE														
-AUXILIARY ACTIVITY														
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY														
-ALL OTHER														
RESTRICTED														
FEDERAL GRANTS & CONTRACTS														
-TOTAL	276	30180	293	32145	314	35350	338	38635	357	41650	376	45065	395	48610

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ADMINISTRATIVE, FINANCIAL AND OTHER SUPPORT SERVICES

Central Management Offices. The planning period will see a continued examination of the organization structure of the Institution with necessary changes to strengthen functional relationships, coordination and communications. Close oversight will be provided to the development of research and scholarship. A new program in collaboration with other organizations may be developed to strengthen science education in the United States. Plans for the exhibition of information theory and technology will be developed in collaboration with industrial and other organizations. Administrative and support functions will be monitored to assure their responsiveness and performance. The Institution's planning function will be given greater weight in relationship to the budget process and will build on recent efforts to gain greater involvement of bureaus and offices in decision-making processes. Continued strong attention will be given to the legal oversight of and counseling on Smithsonian programs and to improvement of financial management and internal control systems. The Institution's audit and investigative programs will be developed to perform additional positive and preventive work. The Office of Management and Budget, Congress and other organizations will be kept informed of plans and programs. Legislative initiatives will be developed and presented. Capital improvement, safety, security and health programs will be planned, implemented and monitored for effectiveness. The Quadrangle and other new facilities will be opened and operated. Overall resources expected in FY 1991 for central administration of the Institution amount to \$5,000,000 and 55 staff. The growth is attributable to the requirements of legal counsel, financial management and the audit and investigative function.

Specialized Administrative and Technical Offices. Continued attention will be given to providing timely and high quality services to Smithsonian bureaus and offices and to the public where appropriate. Automatic data processing will be applied more comprehensively in budget, personnel, financial management, procurement, photographic services, equal opportunity and other areas to improve efficiencies, cope with heavier workloads, provide more effective communications and strengthen controls. Legislated changes to the Civil Service retirement and performance management systems will be implemented. Trust employee benefits programs will be studied and desirable changes put in effect. Benefits communications for all employees will be improved. Statistical analyses and reporting of equal opportunity data will become more useful as management tools and further affirmative action training will be provided to managers and supervisors. Employment opportunities and program accessibility for disabled persons will be stressed. The expansion of the accounting service units, on-line query systems, and daily financial updating will contribute to improved financial management and accountability. Increased efficiency in transaction processing and reporting will be of primary importance. An improved system of small purchases will be installed throughout the Institution to achieve greater accountability and control for added goods and services and to facilitate timely payment of the accounts payable. Contracting procedures, including more analysis of negotiated procurements, will be strengthened and the property management system will rely more heavily on automated procedures. Information resource management efforts will concentrate on final installation of the bibliographic system, phased acquisition of the collections management system for inventory transaction, and research processes, operation of a personnel/payroll system, and acquisition of financial, property management and related systems. A

communications network will be installed between and within buildings to allow access to new computer systems. The nitrate film conversion project will be completed and improved data processing techniques will be applied to photographic work order control and analysis. Cold storage and the study of preservation of photographic materials will be expanded and the inventory will be continued using video disc and other modern technology. Duplicating equipment will be upgraded and new slide programs and posters will be prepared for public sales. Additional assistance will be given to the Institution's professional research staff to locate and obtain grant and contract support. A phased program of contract service reviews will be continued and internal control problems will be inventoried and corrections monitored. Travel assistance will be given including the implementation and management of the GSA credit card program. Special events will be planned and managed to assist in presenting Smithsonian exhibitions and other programs to the public. Support will be given to the operations of programs in the Museum Support Center, the Quadrangle and other new facilities as they may be realized. Overall resources expected in FY 1991 for specialized administrative and technical services amount to \$21,300,000 and 428 staff. Over the planning period, additional resources are forecast for the implementation of computer systems, personnel, financial and procurement management and replacement and upgrading of duplicating and other equipment.

Facilities Offices. During the planning period, work will continue to make the Museum Support Center, the

Quadrangle, and the General Post Office Building operational. New facilities for the support of science activities will be planned, designed and constructed. The maintenance and upgrading programs for the Institution's facilities will be increased in recognition of the size and aging of the physical plant and to correct problems such as asbestos found in numerous buildings. Energy and communication management programs will be monitored closely to control costs. Security will be enhanced by the addition of new personnel, the modernization of alarms and other devices and equipment, and the installation of an electronic monitoring system fully under Smithsonian control. Other areas of emphasis include the strengthening of the personnel security, occupational health, industrial hygiene, and fire protection and safety programs. Overall resources expected in FY 1991 are \$68,500,000, and 1,415 staff. Increased resources represent architectural, engineering, and construction management services in support of an expanded program, the correction of base shortages and expanded capability in the maintenance of the physical plant, and expansion of the security, safety and health programs. Increases are also included for security and maintenance staffing of the Quadrangle.

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 14 (1)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
CENTRAL MANAGEMENT OFFICES														
CENTRAL MANAGEMENT OFFICES-SUMMARY														
FEDERAL SALARY & EXPENSES	36	1762	35	1811	36	1971	36	2020	37	2056	37	2056	37	2056
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	18	1516	16	2032	17	2837	17	2937	18	3030	18	3108	18	3160
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	0	153	0	34	0	27	0	27	0	27	0	28	0	28
RESTRICTED	0	105	0	108	0	105	0	95	0	95	0	95	0	95
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	54	3536	51	3985	53	4940	53	5079	55	5208	55	5287	55	5339
SPECIALIZED ADMIN & TECH OFFICES-SUMMARY														
FEDERAL SALARY & EXPENSES	208	9505	213	10980	221	11598	238	12365	243	12532	247	12732	250	12842
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	151	6157	170	6356	175	7409	176	7654	176	7886	176	8113	176	8346
-AUXILIARY ACTIVITY	2	80	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	2	84	2	89	2	88	2	90	2	92	2	95
-ALL OTHER	0	1012	0	852	0	312	0	302	0	2	0	2	0	2
RESTRICTED	0	7	0	3	0	1	0	0	0	0	0	0	0	0
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	361	16761	385	18275	398	19409	416	20409	421	20510	425	20939	428	21285
FACILITIES OFFICES-SUMMARY														
FEDERAL SALARY & EXPENSES	1153	48765	1195	55097	1276	58908	1335	61697	1365	63449	1391	65007	1396	66237
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	16	1673	16	1606	16	1733	16	1785	16	1837	16	1892	16	1947
-AUXILIARY ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-ALL OTHER	2	215	3	239	3	273	3	263	3	272	3	272	3	273
RESTRICTED	0	0	0	1	0	1	0	1	0	1	0	1	0	1
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL	1171	50653	1214	56943	1295	60915	1354	63746	1384	65559	1410	67172	1415	68458

SMITHSONIAN INSTITUTION
APPLICATION OF OPERATING FUNDS
FY 1985 AND PROJECTED THROUGH 1991

TABLE 14 (2)

	FY 1985		FY 1986		FY 1987		FY 1988		FY 1989		FY 1990		FY 1991	
	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)	FT EMPL	\$ (000)
ADMIN, FIN'L & OTHER SUPPORT SVCS														
ADMIN, FIN'L & OTHER SUPPORT SVCS-SUMMARY														
FEDERAL SALARY & EXPENSES	1397	60032	1443	67888	1533	72477	1609	76082	1645	78037	1675	79795	1683	81135
UNRESTRICTED GENERAL														
-PROGRAM & ADMINISTRATIVE	185	9346	202	9994	208	11979	209	12376	210	12753	210	13113	210	13453
-AUXILIARY ACTIVITY	2	80	0	0	0	0	0	0	0	0	0	0	0	0
UNRESTRICTED SPECIAL PURPOSE														
-BUREAU ACTIVITY	0	0	2	84	2	89	2	88	2	90	2	92	2	95
-ALL OTHER	2	1380	3	1125	3	612	3	592	3	301	3	302	3	303
RESTRICTED	0	112	0	112	0	107	0	96	0	96	0	96	0	96
FEDERAL GRANTS & CONTRACTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-TOTAL-	1586	70950	1650	79203	1746	85264	1823	89234	1860	91277	1890	93398	1898	95082
Less SI overhead recovery														
- Program and Administrative		-7255		-7900		-8200		-8500		-8800		-9100		-9400

APPENDIX II

SMITHSONIAN OPERATING RESOURCES FY 1975 - FY 1991
IN CONSTANT 1985 DOLLARS

This appendix eliminates inflation from the projected funding levels for FY 1986 through FY 1991 in the Prospectus and compares the resulting real (constant dollar) growth for this period to that experienced in previous years. Chart A displays resources of the Institution in constant 1985 dollars, or current purchasing power for the period from 1975 to 1991. Table 15 sets forth 1986 and 1991 financial resources by source of funds, in both actual as well as constant 1985 dollars. Federal fund estimates for FY 1986-91 have been discounted in accordance with inflation indices provided in the summer of 1985 by the Office of Management and Budget; and, in a similar fashion, trust fund estimates have been discounted by a factor of 3 percent computed cumulatively, a figure that units were instructed to use when materials were being assembled for the Institution's budget planning reviews. For FY 1975 and 1980, resources were inflated to 1985 constant dollars based on the Consumer Price Index.

FY 1980 - FY 1986

In constant FY 1985 dollars, real growth from FY 1980 to FY 1986 is expected to amount to some \$73 million, of which \$44 million is attributable to nonappropriated trust funds, and \$31 million to Federal appropriations. Offsetting these increases is a decline in Federal Grant and Contract support of some \$2 million when expressed in constant dollars. The majority of the growth in nonappropriated trust funds (\$39.3 million) is generated by the Institution's revenue producing activities and results from expanded Associate programs, primarily the Smithsonian magazine, expanded mail order and museum shop operations, and the direct mail and recording activities of the Smithsonian Press. In addition, over \$1.5 million in real growth during this period occurs from investment income, while gifts and foundation grants are expected to increase by \$3.5 million. After adjusting for expenses of the auxiliary and bureau activities, net real income provided from all nonappropriated trust fund sources is anticipated to grow by \$10.5 million.

In Federally funded activities, real growth over this period is primarily associated with several major new facilities -- the Quadrangle Center, the Museum Support Center, and the National Museum of African Art -- and their related programmatic and support activities. Real growth has also been experienced in the areas of information automation, collections management and inventory efforts and research support and equipment replacement.

FY 1986 - FY 1991

As detailed in earlier sections of the Prospectus, an increase in gross revenues of over \$143 million is projected for the period from FY 1986 - FY 1991. Of this increase, some \$75 million is required to cover inflationary increases in salaries, utilities, rent, supplies,

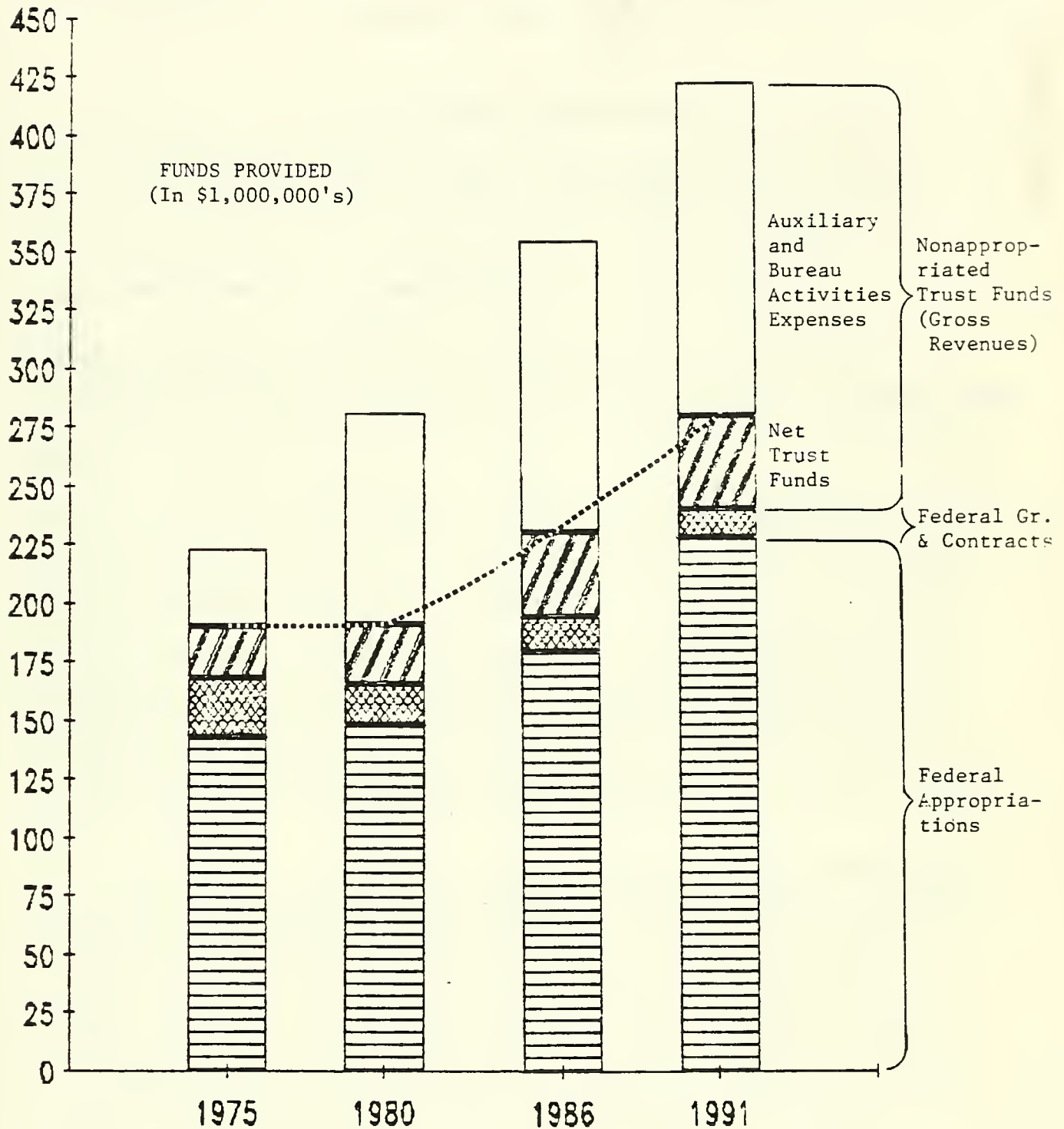
equipment, and other goods, leaving some \$68 million in anticipated real growth. Federal appropriations account for about \$48 million, or 70 percent of the projected constant dollar growth. Much of this growth is associated with operational aspects of the new Quadrangle facility and programmatic activities to be located in the facility including the International Center, the Sackler Gallery and the Museum of African Art. Substantial increases are also projected for research, particularly in the areas of submillimeter wave astronomy and tropical biology including systematics; collections management; conservation; systems automation; library needs; and events associated with the Columbus Quincentennial.

Anticipated real growth in gross revenues of nonappropriated trust funds will amount to over \$23 million, all of which is attributable to auxiliary and bureau activities. After deduction of expenses incurred in generating these revenues, net income expressed in constant dollars will increase by over \$4 million.

Federal grant and contract support, while reflecting substantial increases from 1988 through 1990, is anticipated to decline by 1991 in terms of real dollars (\$-3.1 million), reflecting uncertainty surrounding NASA support of the Astrophysical Observatory's research programs.

Smithsonian Institution Operating Funds - In Constant 1985 Dollars
Fiscal Years 1975, 1980, 1986, 1991

Chart A



(In Thousands of Dollars)

TABLE 15

SMITHSONIAN OPERATING FUNDS

Fiscal Years 1986 and 1991 in Actual and Constant 1985 Dollars

	<u>FY 1986</u>		<u>FY 1991</u>	
	<u>Actual</u>	<u>In Con- stant \$'s</u>	<u>Projected</u>	<u>In Con- stant \$'s</u>
<u>FUNDS PROVIDED</u>				
Federal Appropriation - S&E	185,590	179,407	276,587	227,372
Federal Grants and Contracts	15,815	15,356	14,576	12,215
Nonappropriated Trust Funds:				
Investments	9,021	8,760	9,590	8,036
Gifts and Miscellaneous	9,099	8,835	8,715	7,303
Auxiliary and Bureau Activi- ties Revenues (Gross)	146,661	142,408	200,410	167,944
Less Related Expenses	<u>(127,974)</u>	<u>(124,263)</u>	<u>(170,773)</u>	<u>(143,108)</u>
Auxiliary and Bureau Activi- ties Net Revenue	<u>18,687</u>	<u>18,145</u>	<u>29,637</u>	<u>24,836</u>
Total Nonappropriated Trust Funds:				
-Gross	164,781	160,003	218,715	183,283
-Net	36,807	35,740	47,942	40,175
Total Operating Funds Provided:				
-Gross	366,186	354,766	509,878	422,870
-Net	238,212	230,503	339,105	279,762

APPENDIX III

COLLECTIONS RELATED RESEARCH

The results of curatorial research on the collections in the Freer Gallery of Art are most visible in exhibitions. However, additional research is made available to the public through collection research records, free gallery leaflets, public lectures, and in published papers, articles and books. Specific areas of current research in Japanese art include a sequential study of porcelains, the study of Mino and Seto wares, clan patronage of Japanese ceramics during the Edo period, and other topics such as calligraphy and theater in the Edo period.

In the field of Chinese art, research continues on Chinese calligraphy and paintings of the Sung, Yuan, Ming and Ch'ing dynasties. Specific topics included K'un-ts'an (1612-ca. 1680), Mt. Juang and Chang Ta-ch'ien (1899-1983); the periodization of Yen Chen-ch'ing's (708-784) calligraphic influence; and Huang T'ing-chien's (1045-1105) cursive script and his influence.

In 1973 the Freer published a catalogue, Chinese Figure Painting. This is the only scholarly study in this field and the catalogue has been out of print for seven years. Revision of this original text for publication in 1986 has necessitated a comprehensive review of all literature on that subject during the past twelve years.

In the field of Indian art, research during the last year focused on the art and architecture of 16th century Mughal India. A primary interest has been the development and formation of a Mughal aesthetic and the formulation of a methodology for approaching the works of art made for the emperor Akbar during his years at Fatehpur-Sikri. Several publications will result from this research as well as an international symposium on the art, architecture and culture of Fatehpur-Sikri as part of the Festival of India.

The Technical Laboratory of the Freer Gallery is renowned for its research activities, in addition to the ongoing conservation and restoration of objects in the collection. Research includes: casting methods, corrosion, and lead-isotope ratios in Chinese bronzes; colors of the copper-tin-lead alloy system; Oriental painting materials, including pigments and inks; and technical examination of Islamic metal work for the exhibition and catalogue mentioned above. Continuing research includes lead-isotope ratios in pigments and bronzes from Asia, studies on Chinese ink samples, identification of early Korean painting materials, deterioration mechanisms on East Asian paintings, corrosion on archaeological metal objects, the dating of ancient silver from its microstructure, and improved methods for analysis of archaeological metals. A survey of pigments on Japanese Ukiyo-e paintings in the Freer has been completed and is being reviewed for publication.

At the National Museum of American Art, three recently donated collections provide the basis for scholarly exhibitions and publications. A group of more than two hundred paintings and sculptures by black artists of the nineteenth century was researched for the exhibition and catalogue entitled Sharing Traditions, now traveling to sixteen museums across the country. A group of more than three hundred artworks donated by the Container Corporation of America has been studied in anticipation of a fall 1985 exhibition drawn from that collection of twentieth-century American art, and is the focus of a major research effort, to prepare for a 1987 exhibition.

During FY 1985, the research, exhibition, and publication programs of the Museum were focused on permanent collections and this emphasis will continue at least through 1988. The collection of art works and archival source material in the Museum's Joseph Cornell Study Center provide the impetus for a catalogue raisonne of the artist's works, to be published in 1987-1988 and authored by one of the Museum's curators. Similarly, the Museum's concentration of paintings by Albert Pinkham Ryder -- the largest collection of his work in existence -- has inspired preliminary planning for a major exhibition of his work in 1988, accompanied by a scholarly catalogue. Other significant collections -- murals and mural studies commissioned by the U.S. Postal Service between 1935 and 1943, paintings and drawings by Romaine Brooks, and Pueblo Indian watercolors -- are being conserved and studied in anticipation of small traveling exhibitions accompanied by educational publications.

Among the current research program at the National Portrait Gallery are a study of the portraits done by the prominent 20th century sculpture Gaston Lachaise (in preparation for a major exhibition and book); preparation of a book on the life and work of early American painter, James Earl; research into the history of radio and television broadcasting; and identification and study of the portraits of Henry Inman, for a major exhibition and book. An extensive study of American portrait painting from 1700 to 1789 is being undertaken and the resulting book and exhibition will explore the relationship between artists in the new world and the old, with special attention to Great Britain as a source for the prevalent style in American art of the period. Others are commencing a study on portraits of American jurists for a projected exhibition and publication and also are beginning an extensive research project to document the commissioning of cover portraits for TIME Magazine; the originals of these portraits are a notable part of the Gallery's collection of modern American portraiture.

At the National Air and Space Museum, the curatorial staff and visiting researchers use artifacts as evidence in historical research. This year the Wright brothers 1903 flyer was completely restored. The Museum's records indicated that the engine displayed was not from the first 1903 flights, but as the airplane and power plant were dismantled, much of the engine revealed itself to be the original. New blueprints and a better knowledge of the engineering of this and other airplanes have resulted from these studies and restorations. NASM curators recently rediscovered a pyrheliometer, a device which measures the energy given off by the sun, belonging to Smithsonian Secretary Charles Greeley Abbot. This find will help researchers understand its construction and mode of

operation in early astrophysical research. It will also serve as a means of comparison with a similar instrument found in the National Museum of American History collection on the Mall. Such instruments provide a unique understanding of the development of scientific experimentation.

At the Museum's Center for Earth and Planetary Studies, the collection of more than 200,000 planetary images is the core material for our research on planetary surfaces. Using manned and unmanned spacecraft photographs, geologists at the Center are studying the origin of surface features, and mapping the distribution of certain types of landforms on the planets and their moons. The collection of Space Shuttle photographs is likewise used for analyses of Earth's surface features, particularly in arid lands.

At the Cooper-Hewitt Museum, permanent collection items are usually not on view except in the context of temporary exhibitions. Collections research, therefore, frequently supports and relates with the Museum's outstanding and varied schedule of special, thematic shows. Upcoming exhibitions will deal with several different collection groups in this manner: "20th Century Photographs of Paris by Therese Bonney"; "Fans"; "Printed Fabrics"; and "Locks and Keys".

Additionally, research continues on drawings of French architect Gilles-Marie Oppenord, many of which are represented in the collection. This will result in an eventual monograph. The Museum's Master Degree Program in the History of the Decorative Arts also presents annual opportunities to plan and execute directed research by graduate students in the various areas of the collections. Such work may lead to a thesis, an exhibition and/or a separate publication.

The National Museum of Natural History/Museum of Man, with its vast collections of biological, mineral, and anthropological artifacts, is the world leader in collections-oriented research. Most of the numerous research projects carried on by more than two hundred staff and other scientists involve and are dependent upon the study of specimens and objects in these collections.

In anthropology, Athabaskan bead work is being studied to determine the relations between Athabaskans in Canada and Apaches and Navajos in the southwestern United States. In cooperation with the Kiowa museum, shield models are being studied to examine how ideology is expressed through material culture. Also, native Americans from various areas are completing research on the collections in planning for their own museum exhibits, making replicas of objects for their own use and seeking inspiration for their arts.

The Museum's Registry of Tumors in Lower Animals, which has 5,000 specimens of fish, shellfish, and other animals with various types of tumors, is the world's only clearinghouse for information on cancerous growths in these animals. The increasing numbers of cancerous tumors being found in fish and shellfish living in chemically polluted waters underscore the importance of this collection.

Research on comprehensive collections of the fauna of marine caves has been conducted with colleagues from several other institutions for the past five years. These valuable collections are the basis of considerable systematic, evolutionary, and biogeographic research by invertebrate zoologists. The research has led to hypotheses on the origins, evolution and dispersal of this unique fauna and has precipitated new formal hypotheses about the distribution of animals via the action of plate tectonics and the use of cryptic habitats on the sea floor. Also in invertebrate zoology, long-term collecting and research programs are being conducted on the isolated Indian Ocean island of Aldabra and on small islands in the Caribbean off Belize. The objectives of this collections-oriented research are to document the biological diversity and to determine the ecological interactions in these environments. Information and understanding gained are applicable to similar habitats elsewhere that are threatened or endangered.

The National Entomological Collections at NMNH, containing 30 million specimens, serve as the foremost resource for research scientists worldwide. Every year hundreds of thousands of insect specimens are loaned to researchers in universities and institutes, and this material provides the basis for many of the descriptions of the approximately 10,000 new species published each year. A simple analysis of one recent issue of an entomological journal (July 1985 Proceedings of the Entomological Society of Washington) shows that 75% of the insects described as new therein were either from Smithsonian-loaned material or the specimens are being sent here for deposit.

The large collection of dried plant specimens in the Department of Botany's Herbarium of the Washington-Baltimore area recently provided the basis for producing a documented list of the plant species collected over more than a hundred years in the area of the District of Columbia now known as Rock Creek Park. This list was prepared at the request of the National Park Service to be used as a tool in managing the plant resources of the Park, particularly the rare and endangered species.

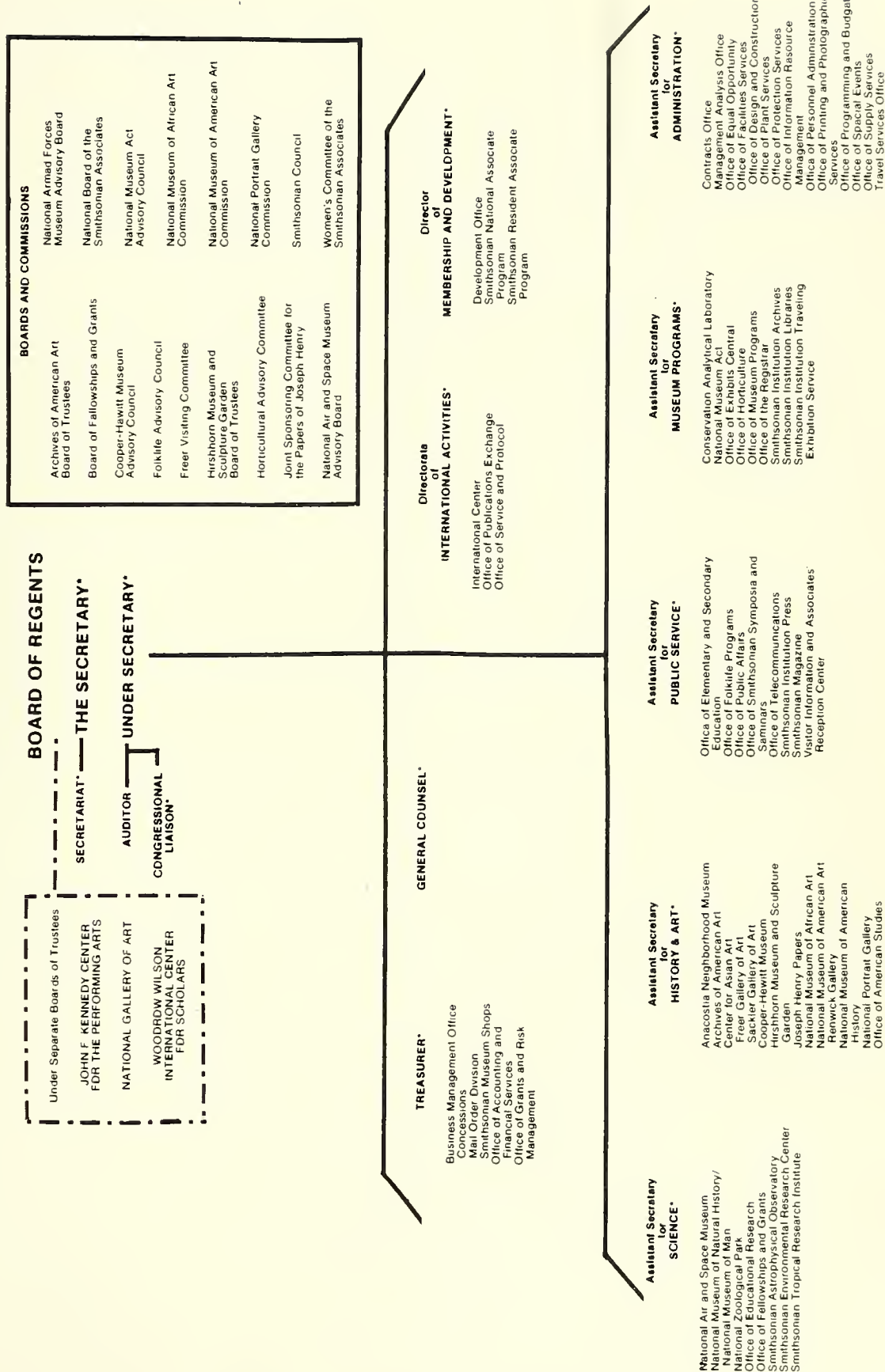
Geologists have been collecting the ongoing eruptive products of the Mount St. Helens Volcano since its catastrophic eruption in May 1980. Studying the changing chemistry and gas content of successive lavas helps scientists to understand what is driving the volcano. Drill cores from the Nile Delta are being studied to document the recent geological history and to chart the Delta's erosion, which has increased alarmingly since the construction of the Aswan Dam. This erosion could have dramatic effects on Egyptian agriculture. In paleobiology, microfossil collections are providing a basis for studying geological history of the Mediterranean Basin.

In vertebrate zoology, the unique collection of fossil bird remains is a crucial resource for the ongoing studies of newly found bird fossils on oceanic islands. Without the existing collection, comparisons could not be made, the new finds could not be identified, and evidences for extinct bird faunas on these islands could not be evaluated. The findings on extinct bird faunas are helping scientists to understand the history of human disturbances on the islands. Detailed analysis of the wrists of flying squirrels, based on anatomical study of NMNH specimens, has

resulted in the conclusion that all flying squirrels were derived from a common ancestor. This study laid to rest an hypothesis that gliding in flying squirrels evolved more than once.

In the National Museum of American History, the collections are providing the basis for a number of scholarly projects. For example, the Museum is studying the transfer of American technology to Prussia in the 19th century, focussing on such artifacts as rolled iron and steel rails adopted by Prussia after the American example, and on the John Bull locomotive, an American adaptation of a British import adopted in turn by Prussian railroad engineers. The Museum is examining laboratory equipment in molecular biology as a key factor in the shaping of research fields in American biology. A study of manufacturing details of 19th-century British scientific instruments as evidence of the maker and the shop is underway. Also underway is a research project on the Bond clock shop on display at NMAH, looking at this collection of clock-making tools as evidence of 19th-century precision manufacturing and as the basis for scientific instrument making in the period. Based on the Museum's collections of political iconography, the Museum is pursuing a comparative study of the meaning of the suffragist movement and of the women's movement of the 1970s. A study of American political campaigns is using the campaign holdings and a study of comparative gender roles in American history is based upon costume holdings. An important study of the cultural meaning of American advertising uses, in part, the advertising collections. In addition, catalogue projects are underway on textile-machinery patent models, on violins and other bowed string instruments, and on puppets.

SMITHSONIAN INSTITUTION



*Secretary's Management Committee

SMITHSONIAN INSTITUTION LIBRARIES



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